

MANUFACTURERS' RECORD

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A
WEEKLY SOUTHERN INDUSTRIAL
RAILROAD & FINANCIAL NEWSPAPER.

BEST FRIENDS OF THE SOUTH.

Hon. Abram S. Hewitt, of New York, in a letter to the Manufacturers' Record published in full on another page in this issue, says:

"You may not be appreciated just at present, but the time will come when everyone in the South will recognize that you have been the best friend it has had during the last twenty-five years. You have made known to the world the unparalleled resources of wealth with which the South is endowed. You have directed thither a very large amount of capital, which has given life to Southern industry and employment to thousands of industrious workmen. Your success has been great, but it would have been far more striking if the Southern people had co-operated with you in the same patriotic and enlightened spirit in which you have brought forward the opportunities they offer to the knowledge of the world. * * * The best friends of the South are those who tell them the truth, and who have steadily warned them of the consequences of the erroneous opinions which they entertain and which they are seeking to incorporate into the laws of the State and the nation. What we have said has been uttered more in sorrow than in anger, and nothing will give us more satisfaction than to hail the return of the South to the old-fashioned doctrines of hard money which were advocated by the great men whom the South produced before the civil war and under whose guidance this country was started on its great career of progress and prosperity."

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No. 1.

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Baltimore, January 28, 1898.

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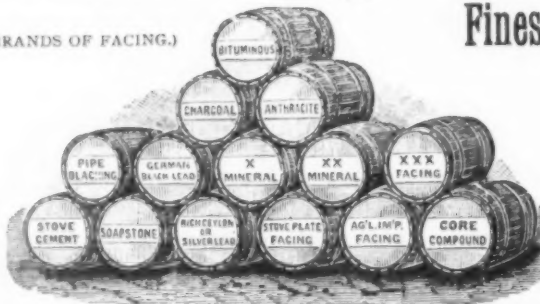
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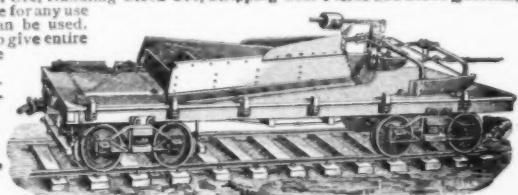
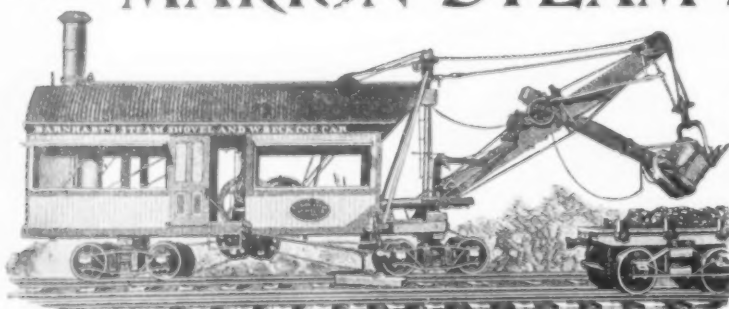
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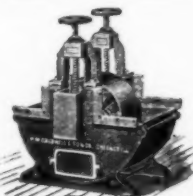


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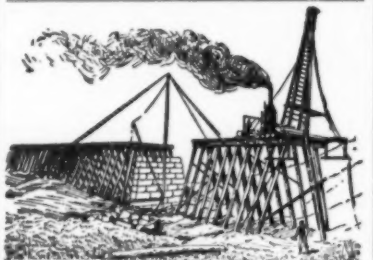
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Hall Steam Pump Co., Pittsburg, Pa.
Manistee Iron Works Co., Manistee, Mich.
Henry E. Knox, Jr., Charlotte, N. C.
Snow Steam Pump Works, Buffalo, N. Y.
- Pump Governor.**
Viaduct Brass Works, Cleveland, O.
Albany Steam Trap Co., Albany, N. Y.
Mason Regulator Co., Boston, Mass.
E. Keeler Co., Williamsport, Pa.
- Punching and Shearing Machinery.**
West Manufacturing Co., Buffalo, N. Y.
Toledo Machine & Tool Co., Toledo, O.
The Stiles & Fladd Press Co., Watert'n, N. Y.
E. W. Bliss Co., 137 Plymouth street, Brooklyn, N. Y.
Bertsch & Co., Cambridge City, Ind.
Wals & Roos Punch & Shear Co., Cin'nati, O.
J. M. Robinson & Co., Cincinnati, O.
Niagara Stamp & Tool Wks., Buffalo, N. Y.
S. C. Forsaith Mch. Co., Manchester, N. H.
- Quarry and Stonecutting Mch.**
Sullivan Machinery Co., Chicago, Ill.
Rand Drill Co., New York, N. Y.
Ingersoll-Sargeant Drill Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
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(New and Second-Hand.)
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Fitz-Hugh & Co., Chicago, Ill.
Haskins Williams & Co., Birmingham, Ala.
Climax Mfg. Co., Corry, Pa.
New York Equipment Co., New York, N. Y.
Dallett & Co., Philadelphia, Pa.
Smith & Kilby Co., Anniston, Ala.
Block-Pollak Iron Co., Cincinnati, O.
Pittsburg Locomotive Wks., Pittsburg, Pa.
M. Mithskun & Co., Detroit, Mich.
Poulter & Co., Philadelphia, Pa.
Hickman & Williams, Louisville, Ky.
The Bailey-Lebby Co., Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C.
L. K. Hirsch, Chicago, Ill.
Robinson & Orr, Pittsburg, Pa.
Weir Frog Co., Cincinnati, O.
H. K. Porter & Co., Pittsburg, Pa.
Baldwin Locomotive Wks., Philadelphia, Pa.
- Rails. (Steel.)**
Aetna Stand. Iron & Steel Co., Bridgeport, O.
- Raw Hide Paper Roofing & Lining.**
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- Reamers.**
Morse Twist Drill & Mch. Co., New Bedford, Mass.
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Crosby St. Gage & Valve Co., Boston, Mass.
- Refrigerating Plants. [See Ice-making Machinery.]**
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H. Mueller Mfg. Co., Decatur, Ill.
Mason Regulator Co., Boston, Mass.
Henry R. Worthington, New York, N. Y.
- Road Machinery.**
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The O. S. Kelly Co., Springfield, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
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The Armistage Mfg. Co., Richmond, Va.
Standard Paint Co., New York, N. Y.
Fay Manilla Roofing Co., Camden, N. J.
Warren Chem. & Mfg. Co., New York, N. Y.
Empire Paint & Roofing Co., Phila., Pa.
C. S. Garrett & Son, Philadelphia, Pa.
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Cortright Metal Roofing Co., Phila., Pa.
- Roofing. (Slate.)**
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Williams & Schmid, Granville, N. Y.
Washington Slate Co., Slatington, Pa.
David McKenna, Slatington, Pa.
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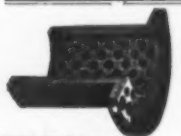
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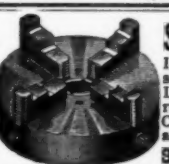
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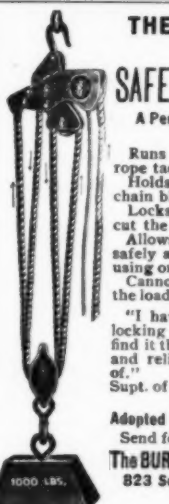
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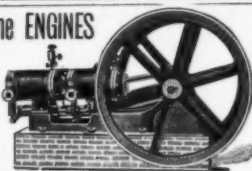
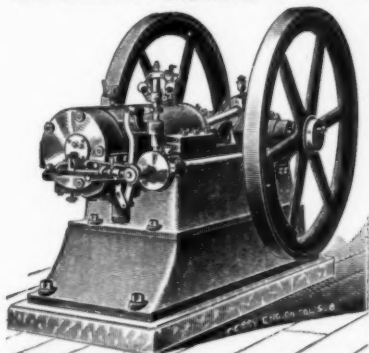
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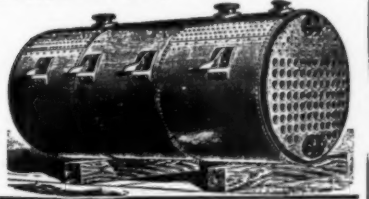
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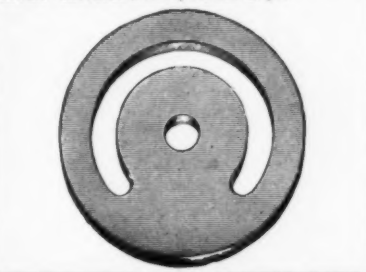
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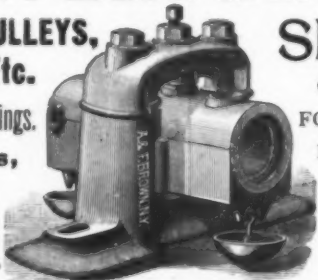
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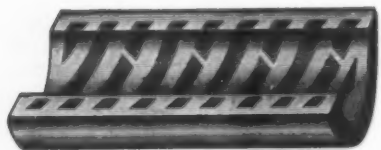
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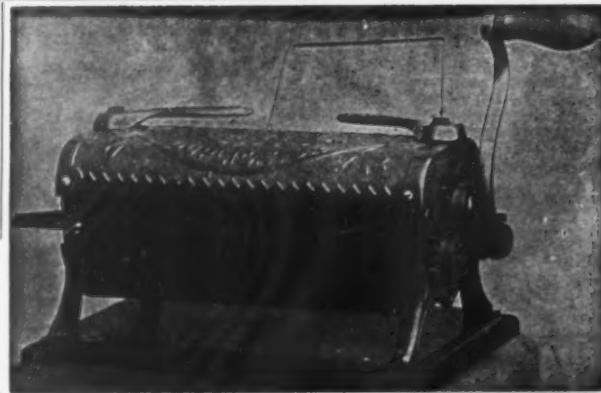
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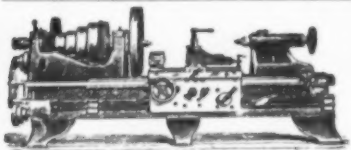


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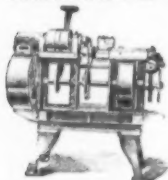
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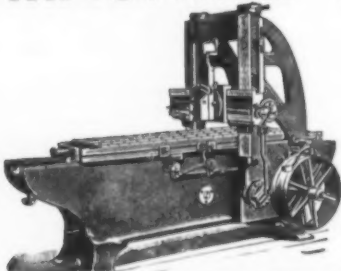
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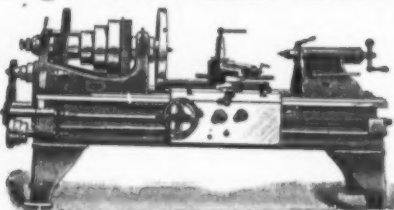


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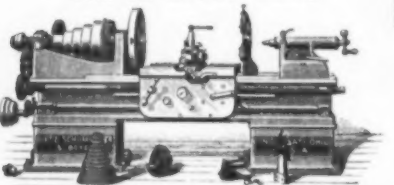


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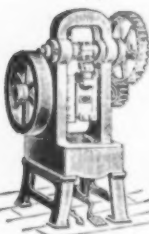


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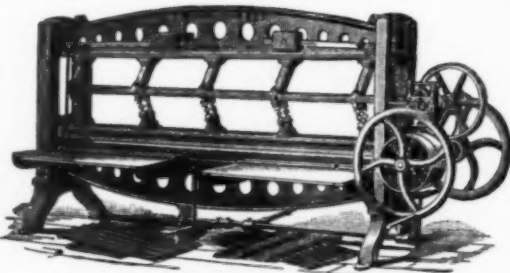
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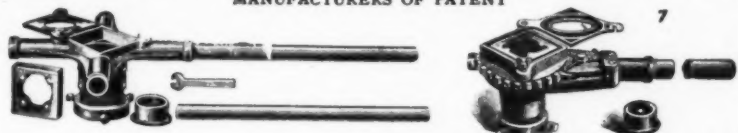
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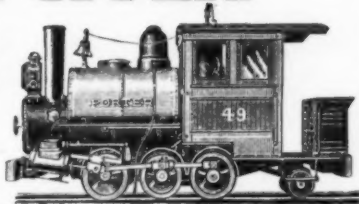
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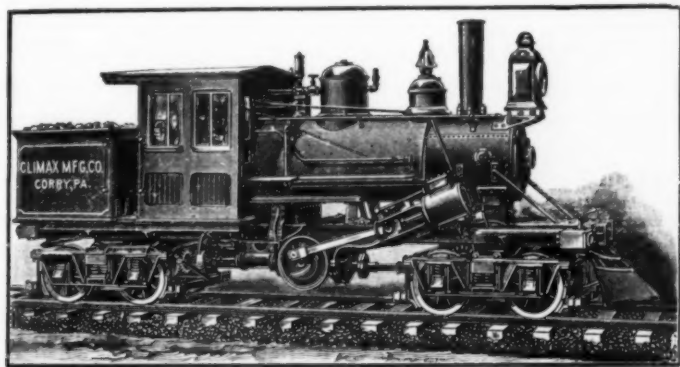
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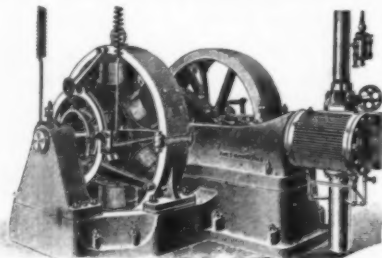
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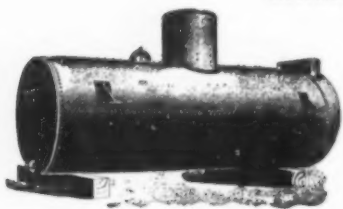
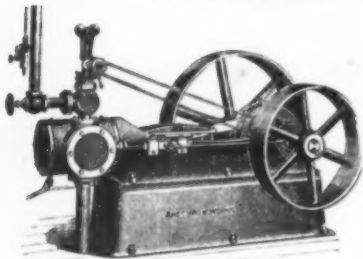
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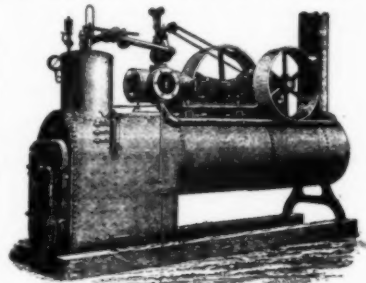
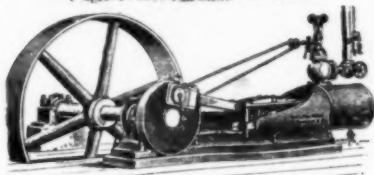
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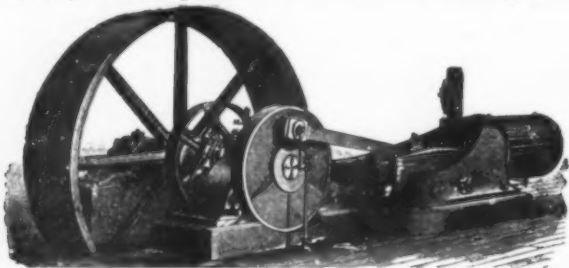
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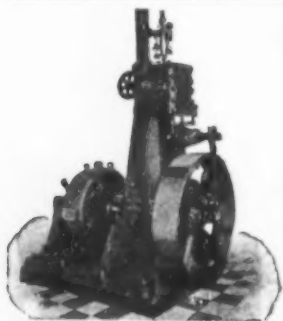
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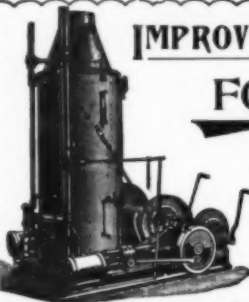


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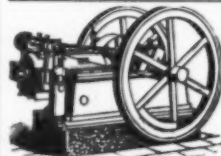
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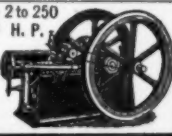
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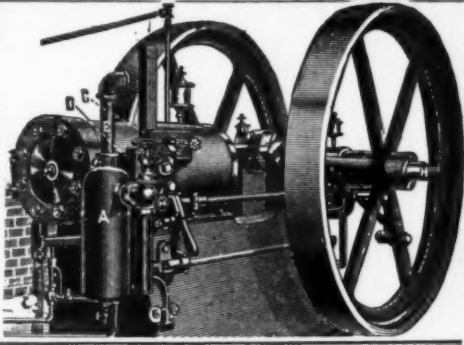


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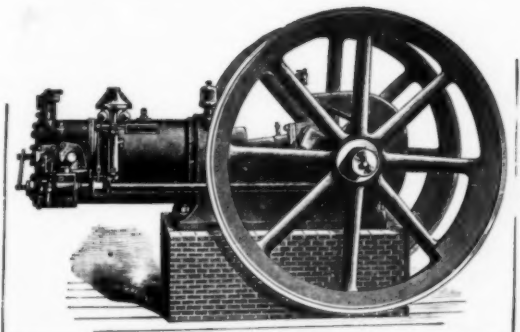
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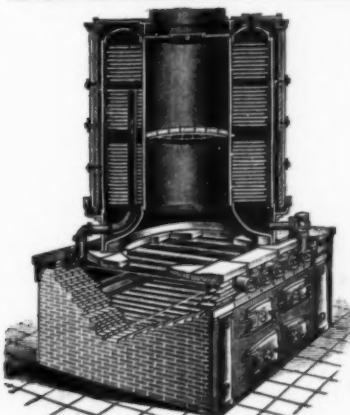


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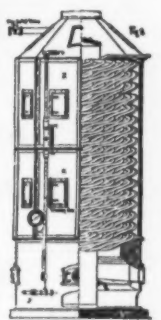
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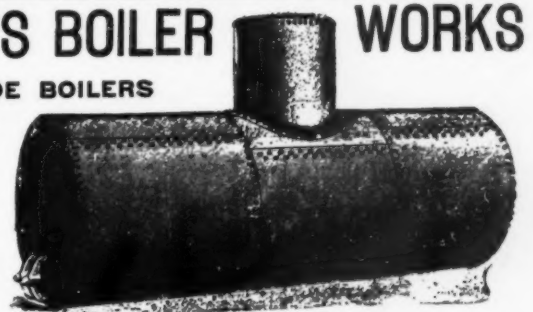
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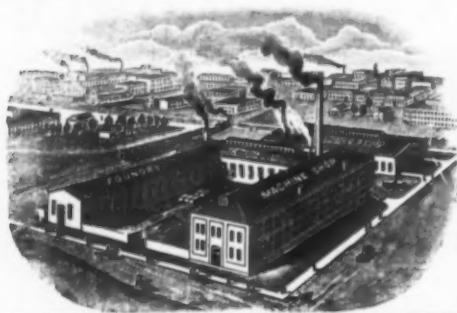
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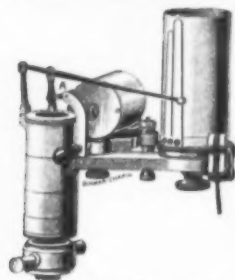
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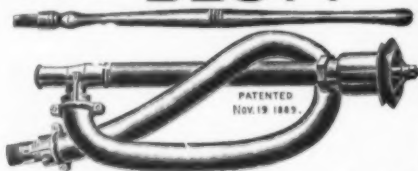
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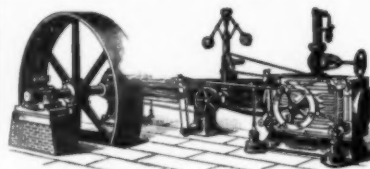
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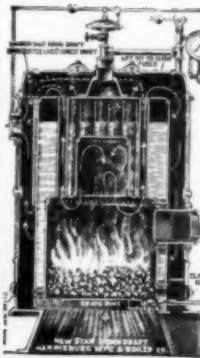
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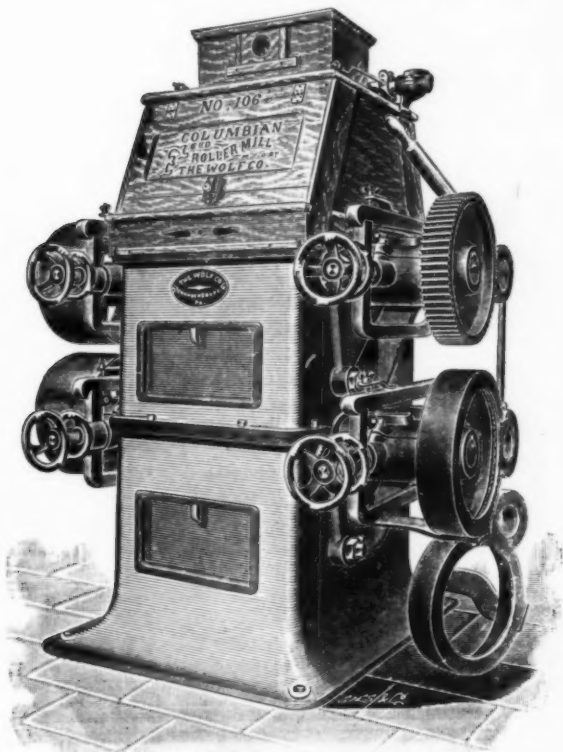
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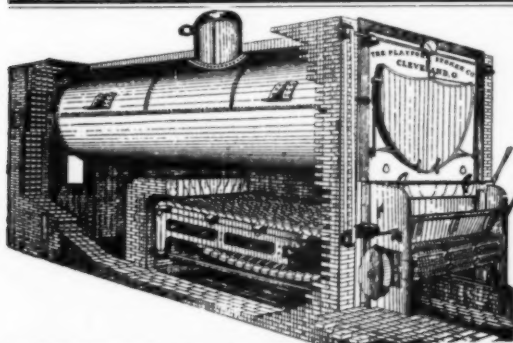
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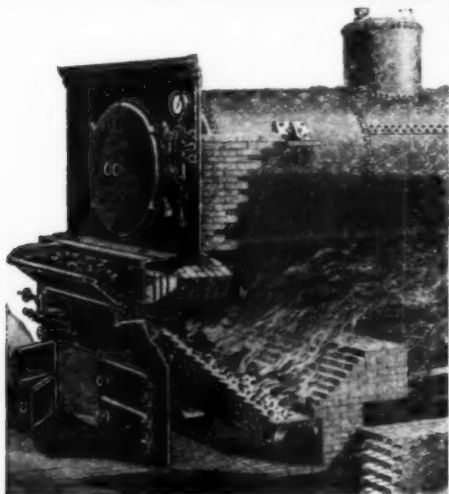
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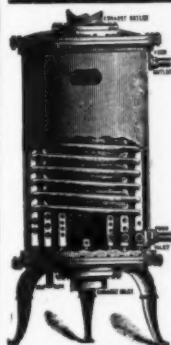
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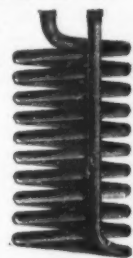
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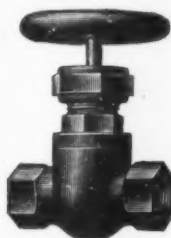
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Ware factories.....	2	13	10,000	25,000
Basket & veneer wks.....	1	250	75,000	125,000
Breweries.....	1	100	167,000	300,000
Broom factories.....	1	10	2,040	6,000
Candy factories.....	10	60	100,000	335,000
Carriage & wagon wks.....	6	100	50,000	100,000
Cider and vinegar.....	3	15	15,000	35,000
Clothing factories.....	9	100	60,000	265,000
Cotton factories.....	645	30,000	600,000	700,000
Cotton ties, etc.....	1	25	10,000	30,000
Cotton & wool pick'g.....	4	15	10,000	25,000
Envelope & box fact'y.....	1	63	30,000	75,000
Fertilizer works.....	12	1,400	5,325,000	4,265,000
Flour and grist mills.....	8	275	150,000	700,000
Foundries & iron wks.....	3	200	250,000	300,000
Ice factories.....	2	25	75,000	100,000
Jobbing and bookbinding.....	8	180	315,000	450,000
Knitting factories.....	1	90	24,000	40,000
Lead factories.....	1	10	40,000	100,000
Marble & granite wks.....	5	60	40,000	70,000
Mattress factories.....	2	35	27,000	70,000
Men's clothing.....	11	90	60,000	250,000
Men's ready-made.....	1	5	20,000	325,000
Prigging estab'nts.....	35	170	75,000	150,000
Rice mills.....	2	130	400,000	1,000,000
Saddlery & harness.....	9	25	40,000	150,000
Sail & awning fact'ies.....	5	30	30,000	80,000
Sash & blind factories.....	3	250	300,000	850,000
Shoe and boot yards.....	3	70	75,000	175,000
Shoe factories.....	1	45	25,000	100,000
Soda and candle fact'y.....	1	15	25,000	60,000
Solid waste.....	2	150	70,000	650,000
Underwear factories.....	2	150	100,000	175,000
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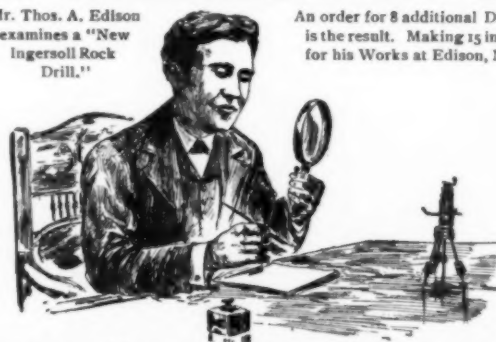


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MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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BALTIMORE, JANUARY 28, 1898.

Interstate Commerce Law.

A dispatch from Washington to the Philadelphia Press says:

Senator Cullom today introduced a bill to amend the interstate commerce law, which measure, the senator said, is intended to cover the defects of the present law as indicated by the courts. But from the expressions of opinion made by the senators and representatives there is small probability of the bill passing Congress at this session.

The objection raised to it is that it gives the interstate commerce commission altogether too much power. Among other things, the bill confers upon the commission the right to determine and fix rates, and also to prohibit any railroad company or other common carrier from charging more for a long than a short haul over the same line.

There is nothing in the bill about pooling, but conferring on the commission power to fix rates on practically all the railroads of the United States is a power that Congress is not likely to sanction, as it would make the commission the most powerful body in this country.

The position taken by the correspondent of the Press is exactly in line with what the Manufacturers' Record has said on this subject. It is to be hoped, for the good of the country, that his conclusions as to the fate of this bill are correct, but the subject is one that demands the serious consideration of the people of the country.

A prominent merchant, largely interested in Southern trade, in a letter to the Manufacturers' Record on this subject, says:

I have read the article published in a recent issue of the Manufacturers' Record by Mr. Thomas P. Grasty on the subject of the interstate commerce commission and the proposed enlarged powers to be granted to it in the bill now before Congress. I think his article covers the ground, and every word contained therein is absolutely true without any exaggeration; it leaves no point uncovered that I can see. I would consider the passage of such an act as the crime of the nineteenth century. The thanks of the people are due to the Manufacturers' Record for so plainly stating the case.

The Norfolk Pilot recently distinguished itself by publishing a "Greater Norfolk" edition, setting forth the many material advantages of the Norfolk basin and giving an exhibition of journalistic enterprise that speaks well for the city's future.

Southern Truths Spread.

The fact that the cotton mills of the South almost without exception are running on full time, and in many cases on double turn, while a large number of the leading mills in New England are closed on account of labor troubles, is forcibly bringing to public attention the advantages that the Manufacturers' Record has persistently claimed for this section. For years we have preached the doctrine of "the cotton mills to the cotton-fields." We have no war to wage against New England, and have no desire to see its manufacturing interests crippled, but that its vast industrial structure is largely an artificial one is too evident to admit of discussion. Importing its cotton, its iron, its coal, its lumber, and even its foodstuffs, New England has built up a vast aggregation of industrial interests that is amazing when compared with what the South has so far accomplished. In 1890 the one State of Massachusetts, which by nature is without natural advantages, having practically none of the raw material on which its great industrial life is built, had \$630,000,000 invested in manufactures, giving employment to 485,000 hands, whose wages aggregated \$239,600,000, and turning out a product valued at \$888,000,000, while the fourteen Southern States, Maryland to Texas, had a capital invested in manufactures of \$657,000,000, paying to their factory employes \$225,000,000 and turning out a product valued at \$917,000,000.

These figures show that the one little State of Massachusetts had created a manufacturing business almost equal, in capital and product, to that of the fourteen Southern States, and in wages paid much greater. They indicate something of the unlimited possibilities for expansion in the South.

Under the conditions that formerly existed, manufacturing was profitable even with the disadvantages under which New England labored, but the economic changes of the last decade have been forcing the world to study how to produce goods at the lowest possible cost. The tendency everywhere is away from the artificial conditions of the past, and the South, with its unequalled advantages, is rapidly claiming the world's attention as the place where cotton manufacturing, iron and steel-making and wood-working can be more profitably operated than anywhere else, either in this country or abroad. The trend of industrial life must steadily move southward. While the present situation in the cotton-mill industry is due in part to the local conditions that prevail in New England and the efforts that are being made by the manufacturers of that section to counteract the stringent labor legislation there, it is unquestionably true that the competition of the South has much to do with the case. This competition must steadily increase. Some months ago a leading cotton manufacturer of New

England, in discussing the situation, stated that while Southern mills did not, of course, produce a sufficient quantity of goods to meet the consumptive demands of the country, they did set the price for all other goods, and New England mills must meet their price or go out of business.

The Brooklyn Eagle, commenting on these facts, so often presented in the Manufacturers' Record, says:

The South has the cotton in her fields, it can be passed into her mill doors without putting it on a train or boat; she has water-power, wood and coal, brick, clay, building-stone of all sorts, and her land is still so cheap that it is easy to acquire all that is needed of it for factories; it is easier for operatives to live in the South, too, than it is in the North; rents are cheaper, because land is cheaper; there is less need for fuel to keep the houses warm, and of thick clothing to keep the body warm; food of all kinds is offered in greater variety than in the North and at lower prices in some seasons.

Referring to the mills already in operation in the South, the Eagle adds:

They are forerunners of a vast industry that will one day be developed in the cotton belt, and that will be followed by a transfer of the sugar industry to the region where the sugar-cane is grown. Economy and sense dictate the removal of factories to the places that furnish the crude product.

And as to the artificial foundation of the industrial life of Massachusetts, it says:

Normally, there was never a reason for these mills in Massachusetts, because the cotton was grown a thousand miles away from that State.

These are truths which the Manufacturers' Record has been preaching for fifteen years. They were ridiculed for many years by the papers of other sections, but at last they are being adopted as the views of many of the foremost publications of the North. The Manufacturers' Record, while always willing, if necessary, to fight its battles for the South alone, is ever ready to welcome allies who join in the good work, and so it rejoices that the Eagle and so many other papers are now adopting as their own the gospel that week after week and year after year we have been preaching.

For Southern Commerce.

Figures and other facts presented from time to time by the Manufacturers' Record form a record of the marvelous development of commerce at Southern ports. The story of this enlargement of foreign trade is one ever increasing in volume. It is of such importance that the Manufacturers' Record, which has contributed all within its power for its encouragement, has decided to open a special department for its furtherance.

In doing this it believes that it is following strictly the lines which it has maintained for fifteen years, drawn as an aid to the industrial growth of the South. The expansion of foreign trade has been largely due to the efforts of railroads seeking the most direct routes from the grain fields of the Northwest and West and the cotton fields of the South to deep water. To this move-

ment has been added that of iron, coal and lumber, and the next stage is the traffic of various manufactured articles. It is becoming more and more necessary for this country to appreciate that manufactures must be added to agriculture as the basis of commerce. If the Southern ports are to retain the prestige they have gained they must put forth every effort, not only to give the railroads inward bound freight, but to widen the foreign markets for the sale of Southern products.

Such a policy means the expansion of every interest working for the full development of the South. That is why the Manufacturers' Record intends to help the good work along.

"The Blight of Populism."

Half a dozen of our Southern contemporaries have seen fit in a splenetic mood to assail the Manufacturers' Record for its position regarding the South as a field for investment. To the credit of most of them it must be said that they were consistent in their diatribes, although they apparently did not know what they were talking about. A notable exception is the Richmond (Va.) Times. It apparently not only does not know what it is talking about, but also fails to maintain its frame of mind even in one article. On January 4 it said:

Some time ago the Baltimore Manufacturers' Record published an editorial article in which it said that the trouble with the South was populist agitation, unwise laws and threatened legislation against property investments, as well as an indifference in some communities to public obligations.

Some of our Southern contemporaries have evinced great indignation at the article in question and have denounced it as absolutely false. We confess to resentment at what the Manufacturers' Record has said, for its charges are entirely too sweeping, and to the South a gross injustice. But candor compels us to say that some of the Southern States have laid themselves open to the charge, and we are not surprised that it has been made. It cannot be denied that when the South allied itself with a handful of silver States in the West, a tide of populism swept over Dixie land, and more's the pity. Free silver was openly advocated as the means of enabling "the debtor class" to discharge their obligations in depreciated currency, and the sentiment against "the money power" and corporations generally, found expression not only in speech and newspaper article, but, in some cases, in so-called anti-trust laws. Tirades against "organized capital" were loud and frequent, and railroads were denounced as the oppressors of the people.

As to the second charge, we have more than once referred to the fact that the people of Stanly county, North Carolina, recently repudiated bonds voted to a railroad corporation, taking advantage of a legal technicality, and this, too, in spite of the fact that the corporation had complied with the terms under which the subscription was voted.

Following the example of Stanly county, the chairman of the county commissioners of Buncombe has taken steps to repudiate bonds of that county amounting to \$98,000, issued also in aid of a railroad.

It is, alas, but too true that populism has run riot in the South, and the bitter fruits are now being gathered.

But the populist wave is receding, and the people of the South are coming to themselves. They are progressive, and they are honest, and the article of the Manufactur-

ers' Record is, as applied to the people as a whole, slanderous. The last session of the Georgia legislature did not entertain a single measure making war on enterprise, and if there is any such disposition on the part of the Virginia legislature it has not made itself manifest. The newspapers of North Carolina, some of them at least, have denounced the action of Stanly county in repudiating its bonds, and the business men of Asheville, assembled for the purpose of organizing a board of trade, passed a resolution condemning the action of the Buncombe county commissioners for attempting to do the same thing, and a mass-meeting was subsequently held to devise means to forestall the commissioners.

These are healthy signs, as showing that Dixie is recovering from the blight of populism.

This editorial is reproduced in full as an indication of the mental wavering of the editor of the Times. He starts out to denounce the Manufacturers' Record, but winds up with the strongest kind of an endorsement of our position. This was to be expected of him after sober reflection and due attention to facts. In truth, on January 8 he wrote another editorial, from which the following is reproduced:

The South is the favored section of this country, and her prospects were never brighter. Capital is looking in this direction and desirable citizens from the North and Northwest are desirous of making their homes here. But if the South would make the most of its opportunities it must beware of populism, which is a blight wherever it breaks out. The South needs to demonstrate beyond the cavil of the skeptic that it is in favor of enterprise and in favor of laws that will protect every legitimate business which is carried on. That it is opposed to all forms of repudiation. That it will frown upon the demagogue and the professional agitator who tries to array class against class; who tries to make an issue between labor and capital.

Another thing. The South should set its face against lynching and all forms of mob violence. Apart from all other considerations, the fact that there have been so many lynchings in the South has created the impression abroad that human life is not safe in Dixie. We, of the South, know differently. We know that the man who behaves himself is as safe here as he is anywhere. But until we determine to try all persons accused of crime in the courts and not by a mob, we cannot correct the erroneous impression that prevails in other sections.

One thing more. Elections in the South must be fair and honest. Desirable citizens are not disposed to settle in a community where the ballot-box is trifled with.

Let the South root out populism in all its forms, go out of the lynching business and stand up everywhere for a pure ballot, and prosperity will blossom like the flowers of Florida.

The editor of the Richmond Times ought to be a little careful in applying such epithets as "slanderous." We have a suspicion that the really absurd attitude of the Times has rather a reminiscent squint, if not an amendatory one, toward the recent past, which is further revealed in the following from two of its editorials of January 14, relating ostensibly to North Carolina and Maryland, respectively:

There can be no high sense of public morality in any community where dishonest elections are winked at. An honest ballot lies at the base of the moral structure, and when the foundation becomes rotten the superstructure must inevitably fall.

The Times has been working on public sentiment in Virginia for years past, and we are encouraged to believe that the ruling sentiment in this State now is in favor of honest elections.

However, we are constrained to draw that mantle which covers a multitude of sins over the villifying, not so ancient, of the editor of the Times by Virginians because of his method of advocating ballot reform, and we express the belief that when he has recovered from the intellectual obfuscation from which he seems to suffer he will perceive that he was somewhat hasty in circulating an

ugly word. If his editorials did not demonstrate that he had unconsciously absorbed the opinion of the Manufacturers' Record, we should be inclined to think that his rash charge was due to the fact that in the rush of other business he had been prevented from reading the editorial which he was about to have attacked, or that his memory is exceedingly short—a misfortune for a journalist. In order, though, that he may of a certainty know whereof he hath written, we call his attention to the following extracts from the editorial of the Manufacturers' Record of August 6 last:

These facts give the South an opportunity such as no other section ever enjoyed. Populism, though strong in some places, has not yet become the dominant power of evil. Some of its legislation, enacted and threatened, has, however, greatly retarded all business interests. To this may be added the indifference of some communities in promptly meeting their obligations, thus making all alike suffer. This is due mainly not to any intentional wrongdoing, but to a failure to appreciate the necessity of a strict compliance with the spirit and letter of financial obligations.

The men of affairs of the South and the honest legislator appreciate this situation; the blame does not rest upon them except indirectly. Nowhere can a higher sense of business honor be found than in this section. But the men of character have been too much absorbed in their own business affairs, in their farms, their factories, their mercantile interests, to fully see the necessity of combatting the work of the scheming, visionary politicians, who find a congenial field of employment in seeking to devise dishonest legislation, and thus the honest, intelligent legislators find themselves without adequate moral backing on the part of the people. The time has come for the business men, or rather, we should say, for the honest men of the South, whether in business or not, to unite against the work of demagogues.

With wise legislation, freedom from populist agitation against capital and corporations, and a strong support of all laws looking to the equitable protection of investments, the South will command millions of capital for railroad improvements, new municipal improvements and new industrial enterprises. Will the people of the South make the most of this opportunity?

Will the editor of the Times read these extracts and then point out wherein he differs from the Manufacturers' Record—if he has not again changed his mind?

Eliminating a Pest.

Conservative men in those States of the South that have suffered from the demagogue may take heart in reading the following from the Sheffield (Ala.) Reaper:

The Manufacturers' Record, one of the staunchest friends under all skies the South has ever had, as a defense of itself against criticism for referring to the prevalence of the pest known as the demagogue, has reprinted the remarks of the Tuscaloosa Evening Times and the Reaper upon the baneful scourge, and urges its critics to ponder them. The Manufacturers' Record is conservative, too much so, in treating of such subjects. The South's advance will only be in the ratio that this human razorback pest is eliminated, and no greater. Those who doubt his pestilential existence in large surplus quantities should visit the dead and incomplete enterprises in Alabama and hear a true relation of their downfall. Demagoguery and mean politics explain the results. Of course, the demagogues will deny it. They will deny anything and fraternize with the devil if it will give them place. The Manufacturers' Record can feel assured that it has only been criticised by that disreputable element and not by honest men.

We appreciate the generosity of the Reaper, but we cannot agree entirely with its conclusion. We do not charge that the majority of the few who do not unite with us for the upbuilding of the South are disreputable, but in sadness we contemplate their dwarfing delusion.

Banking in the South in 1860.

In a letter to the Manufacturers' Record telling of the advantages of Fayetteville, N. C., as a site for a national, State or private bank, Mr. F. R. Rose says that there is but one bank there now, although before the war the town had four banks, with a capital of \$1,500,000. We refer to this statement merely to call attention to the difference in the South as to banking facilities at present and fifty years ago, and to make the suggestion that financiers who are interested in the solution of the currency problem will make no mistake if they study conditions in some States under the old State banking system. There were disgraceful outcomes of such a system in the South as there were in the North, but at the same time the experiences of Maryland, Virginia, South Carolina and Louisiana are full of instruction for those persons who, forgetting that more than one of the safeguards and easements of the national banking system were derived from sound State systems, believe that nothing was good in the latter. Several plans have been broached for reviving the State bank system, and it does not seem impossible to devise a plan for a practically uniform State banking system that will operate with profit to itself and with increased business for existing institutions on the national basis. We are convinced that a reform of a progressive nature in the banking system will do much in settling the financial question safely and permanently, and with justice to all.

In 1860 the total banking capital of the United States was \$421,890,095, of which \$117,000,000 was in the South, Louisiana, for instance, taking rank as the fourth State in the Union as to banking capital. New York led, with \$111,441,320; Massachusetts next, with \$64,519,200; Pennsylvania third, with \$25,565,582, and Louisiana fourth, with \$24,496,866, or only \$1,000,000 less than Pennsylvania. An interesting study is found in the statistics showing the specie held in proportion to circulation. Massachusetts banks had \$22,086,920 circulation outstanding, with specie on hand amounting to \$7,332,647, or about one-third, while Louisiana had \$11,579,313 circulation and \$12,115,431 in specie, or \$500,000 in specie more than the total outstanding circulation. Maryland had \$2,779,418 specie and \$4,106,869 circulation, while Rhode Island had only \$450,920 specie, against \$3,558,295 circulation. Tennessee had \$2,267,710 specie and \$5,538,378 circulation, while Vermont had \$3,882,983 circulation and only \$198,409 in specie.

A Lesson from Germany.

Mr. M. G. Mulhall, the well-known statistician of England, who recently made such a spectacle of himself as a belated analyzer of American statistics, has turned his attention to Germany. It cannot be definitely stated whether his German statistics are of any greater value than his American ones. But statistics are not really needed to demonstrate that Germany has made great strides during the past two decades in industrial undertakings, nor does one have to look far beyond the fact that there has been persistent encouragement of advanced special training to discover the cause of the advance.

As Germany proposes to do all within its power to dominate the industrialism of the future, the United States,

and particularly the southern portion, cannot afford to waste any time in preparing to meet the competition. Proximity to raw material and a favorable climate are tremendous advantages from the manufacturing standpoint, but they alone cannot render a nation invincible. The history of the older manufacturing centers is a record of the conquest of natural disadvantages by boldness of enterprise, wise foresight and the cultivation of a skilled laboring population.

With their magnificent progress of the past twenty-five years, the United States are only on the verge of an industrial career that can be made world-embracing. The enterprise, the foresight, the resources are theirs. They have a grand army of workmen. But that army must be swelled. It must cease to be upon a mere peace footing. The coming generation must be trained to fill the ranks. And the South particularly should take this suggestion to heart. Germany numbers her technical schools by the hundreds, and it is to this that her wonderful industrial progress is largely due. The South must follow her example.

Texas on the Right Road.

The Galveston News, which has made a sturdy, persistent campaign for the credit of Texas, expresses delight at the fact of the Supreme Court of the State having found in the general statutes and in the organic law ample protection for its credit in the matter of courthouse, jail and bridge bonds. In August a proposed amendment to the constitution tending to invalidate the bonds, with the exception of those in which the school fund was invested, was defeated. This decision of the Supreme Court clinches the matter, and the News says.

The world is now put on notice that Texas refuses to repudiate. The Supreme Court in its wisdom has cleared the atmosphere and placed the name of Texas high in the estimation of Northern capital. The new year continues to unfold its promises of stable, rapid and solid advancement.

The Manufacturers' Record joins the News in felicitating Texas on this evidence of an intent to maintain financial morality, and it adds that the best way to make good what the News calls the court's "notice that Texas must maintain a clean record for safe credit," is to restrain in innocuous desuetude the mouthers of demagoguery whose acts and utterances make necessary an appeal to the sobriety of a court.

Confusion in Florida.

Green Cove Springs, Jan. 18.—One of the most astonishing visitors to the fair of Clay county and the State Tobacco Growers' Association was C. B. Rogers, of Jacksonville—better say Florida. When he entered the fair building he found staring him in the face a banner bearing this device:

"A man to fill any public trust—C. B. Rogers, of Duval. A business man, of the plain people, of sturdy honesty, thoroughly identified with development and progress."

But this was not all. The banner, with its great letters in red, black and gold, bore, as its centerpiece, a likeness of Mr. Rogers himself, executed so well that none could fail to recognize it.

To the embarrassment was added a crowd of enthusiastic friends, bearing each upon his breast a badge:

"Clay county's candidate for governor—Charles B. Rogers. The people's and business men's choice."—Florida Times-Union.

It is not surprising that Mr. Rogers was embarrassed. He expected to attend a tobacco exhibition and stumbled upon an apparent gubernatorial nominating gathering. The relation of one to the other is obscure enough to con-

fuse anybody. And yet people wonder why farmers are losing interest in so-called agricultural fairs.

New York's Sad Luck.

Southern commercial interests have heard during the past year, not without a feeling at times of being bored, a great deal of complaint from New York about the disadvantage at which it was held by Southern ports. These, designated outports or rivals, according to circumstances, have been informed that by means of discriminating differentials, winter load lines and other like terrible agencies they have derived trade benefits which properly belonged to New York. Now another side of the story is coming to the surface by degrees. Almost simultaneously with the announcement of cut rates on roads running to New York and of the expectation of a removal of the winter load line, which ordinarily one might expect would make everything plain sailing for the Greater New York, a blow is delivered—not below the belt this time, but from the rear. In quite a long article detailing this news, the New York Journal of Commerce, which is alive to all things affecting its habitat, says:

Emphatic demands from some of the largest Western shippers of grain have recently been made upon the New York railroads that they must prepare to load steamships at their grain elevators. The shippers intimate that unless this is done they will send their grain to other ports where railroads will do this kind of business. The understanding that the railroad men have of these demands is that they must transfer the grain direct from the cars to the steamer without charge, as, it is claimed, is done at some of the other ports. As a result of the cuts that have been made in grain rates by all the New York roads this year the idea has become general in the West that one of the New York roads was already rebating the terminal charge. The road referred to is the Erie, and that road has been singled out on account of the report that steamships were being loaded direct from the cars at the Erie elevator. It is true that steamers are being loaded at the transfer of the Erie elevator, but, according to Mr. Allerton, the manager of the company that leases the elevator from the railroad, the grain is not being transferred free. All the grain thus transferred is from canal boats, none being direct from cars. Much of this grain comes by canal and the greater part of what does not come by canal is brought to New York by other roads than the Erie. The Erie elevator is simply in this matter competing with the floating elevators, and the floating elevators have in consequence been compelled to abandon a material part of the charge they have heretofore made for "transportation of elevator," which is entirely an arbitrary charge sanctioned by the New York Produce Exchange on the ground that the rate of one-half cent, which the State law sought to establish as a maximum charge for transfer of grain by floating elevators, was not sufficient to enable the floating elevator business to be conducted at a profit. . . . The basis of the demand of Western shippers, it is understood, is that if they can get equal facilities at New York and can guarantee the prompt dispatch of steamers from New York as a result of prompt loading, they will be able to make more favorable arrangements for freight rates at New York than at the competing ports. The railroads that have elevators at this port are the Erie, the West Shore, New York Central and the Pennsylvania. At all of these except the Erie considerable dredging would have to be done before any large vessels could be accommodated. It is said to be possible to keep the water at the West Shore at a sufficient depth to accommodate large steamers. The export elevator of the New York Central was burned some time ago, and the elevator at Sixty-fifth street is not favorably adapted to the export business. It is evident, therefore, that if the demands of the Western shippers are to be complied with, there will necessarily be a considerable building of railroad elevators at this port. The railroad people are seriously considering the necessity of action.

The situation is so acute that Governor Black of New York felt called

upon to give special attention to it in his message as follows:

I have been so impressed by this subject, in its relation to the State, that I communicate with you, not only for your co-operation, but in the hope of arousing the attention of those most closely in touch with the question, and, therefore, best qualified to handle it. No man can contemplate the past history of New York without feelings of pride. Surrounded at the beginning like her sister Commonwealths with conditions which seemed almost without hope, she has in a few years attained the dimensions of an empire. This transformation has been wrought through the unexampled gifts of nature, and the industry and skill of citizens protected by a wise and just government. If these reflections inspire pride only, without determination, their main value is lost. An inspiration that produces no result is no better than an agreeable recollection. There must be some practical test of the effect of former achievements upon our present energy. This test will be found in the manner in which the people of this State deal with the subject of their commerce in its present situation. That situation is not as it ought to be. It is easily the best in the country, but it is not so much the best as it has been and can be made. The commerce of New York is not increasing as rapidly as that of other ports. Perhaps this is inevitable, for the first of yesterday may be the second today, and out of the race tomorrow. But it is not likely that New York is suffering from conditions which she cannot overcome. The conditions which hold her back seem to be neither natural nor general. It is said that the commerce tributary to New York city has been checked and discouraged by a too narrow policy prevailing there with reference to terminal facilities. If this is true, that policy should be corrected, no matter whether it is pursued by the city or by individuals. The facilities of New York belong not to the city or even to the State, but to the country. If by location she is the best point of shipment to foreign markets for Western farmers, then her advantages should be open no more to a Broadway merchant than to a Kansas farmer. And the rights of the latter should not be abridged by restrictions or charges which would drive him to Galveston or New Orleans. Every citizen in this country has a right to get to the sea with his product, no matter whether he lives on the coast or not, and he should not be subjected when there to unreasonable demands from those who have accommodations which he is obliged to employ. Some communities are so placed that their course not only interests, but largely affects, others. To the extent in which this is true, just to that extent has the public the right to advise and direct those so situated. New York city is in this class. Her affairs are not local, but national, and this view receives constant recognition at the hands of the general government. Millions of money from the general treasury have been expended in New York with national sanction, and millions more should be expended now in the single project of deepening the approaches to her harbor. But this national aspect cannot be urged when her benefits are considered and denied when others claim theirs. This State should open such facilities in New York harbor as will draw and accommodate every pound of commerce which would naturally come there. The desire on the part of individuals or of the city for rapid accumulations should not prevent this result. The broadest and most liberal policy is the wisest. An outlay for such a purpose would be repaid tenfold in pecuniary returns and in the growth and prestige of the State. Neglect or carelessness in dealing with this subject would put New York at a disadvantage with other ports in the United States, and might put the whole country at a disadvantage with Canada. The Canadians are just now discussing this subject, and are relying upon advantages afforded by the St. Lawrence river to attract over that stream the products of Wisconsin, Minnesota, Dakota and other Western States intended for foreign markets. This competition should be feared and met. In order that this subject may be treated with that consideration and care which its magnitude demands, I recommend that a commission be created to examine into the commerce of New York, the cause of its decline, the means of its revival, and to report conclusions.

This is really too bad for New York. If it is not one thing it is another that is hampering it in its ambition to take everything in sight. If it is not the South it is the West. Of course, New

The Truth Will Prevail.

The following letter from Hon. Abram S. Hewitt, of New York, will interest those persons who deal in facts rather than fancy about the South:

Cooper, Hewitt & Co.,
New York.

New York, January 21, 1898.

R. H. Edmonds, Esq.,

Manufacturers' Record, Baltimore, Md.:

My Dear Sir—I am very much obliged to you for sending me a copy of the Manufacturers' Record, issued the 21st inst., and have, as you request, carefully read the letters of Judge Norwood and Mr. Denmark, with your comments thereon. These letters present a very interesting and curious phase of public opinion. Your comments upon them are eminently just and wise. You may not be appreciated just at present, but the time will come when everyone in the South will recognize that you have been the best friend it has had during the last twenty-five years. You have made known to the world the unparalleled resources of wealth with which the South is endowed. You have directed thither a very large amount of capital, which has given life to Southern industry and employment to thousands of industrious workmen. Your success has been great, but it would have been far more striking if the Southern people had co-operated with you in the same patriotic and enlightened spirit in which you have brought forward the opportunities they offer to the knowledge of the world. The complaint is not against individuals in the South, nor does anyone imagine that the Southern people are less inclined to frame good laws and to yield obedience to them than the inhabitants of the other parts of the Union. Those who have complained of public opinion in the South have always been careful to assert that the standard of manhood was there quite as high as anywhere else in the world. Unfortunately, however, there has been a widespread delusion as to the standard of value upon which all progress must be based. What is known as populism is the expression of this delusion. It proceeds upon the theory that legislation can create value. The error is fundamental. Value is intrinsic and business cannot be conducted safely anywhere unless the standard of value in existence is stable and not dependent upon legislation for value. You have merely told the Southern people that capital will not go where unreal and unsubstantial standards are set up. The delusion of the South in regard to silver, honestly entertained, has done more to prevent the investment of capital within its borders than all your efforts for a quarter of a century have accomplished in directing thither the tide of investment.

Personally, I feel no grievance at the reference of Judge Norwood to me. I knew him in Washington, and formed a very high opinion of his character and ability. No man lives who would question his integrity or his honor. He seems to think that my opinions are based upon ignorance of the South. In this opinion he is simply mistaken. There is not a Southern State which I have not visited, and no one in which I have not invested money. I may add that very little of this money has ever been returned to me, and in most cases has been unproductive. I have succeeded of late years in placing large amounts in West Virginia, where the laws are more conservative and where public opinion seems to be on the side of a stable and single standard of value. In that State the results promise to be very satisfactory, but capital invested in Georgia, Alabama, Florida and Tennessee has not been able to get satisfactory returns. The fault may lie with my judgment in selecting proper objects of investment, but I can tell Judge Norwood that no investments were made without very careful preliminary examination and considerably more than mere geographical knowledge. I hope that in the long run they will turn out to have been wisely made, but the parties associated with me are not willing to increase these investments or to develop the property which they have acquired so long as the popular belief in the power of legislation to create values seems likely to prevail.

The best friends of the South are those who tell them the truth, and who have steadily warned them of the consequences of the erroneous opinions which they entertain and which they are seeking to incorporate into the laws of the State and the nation. What we have said has been uttered more in sorrow than in anger, and nothing will give us more satisfaction than to hail the return of the South to the old-fashioned doctrines of hard money which were advocated by the great men whom the South produced before the civil war and under whose guidance this country was started on its great career of progress and prosperity.

Sincerely yours,

ABRAM S. HEWITT.

York should not be blamed too harshly for having such an ambition. It is but an expression of a natural instinct of aggressive and progressive trade. But, on the other hand, New York must not find too much fault with either the South or the West, or with them in combination, if in response to a similar instinct of self-interested assertiveness they find mutual commercial satisfaction while New York is considering the advisability of building new elevators. Baltimore, Newport News, Charleston, New Orleans, Galveston and other ports cannot be blamed for seizing the opportunity presented in the dissatisfaction of the West with New York's lack of facilities, and they should be encouraged to leave nothing undone for their own advancement in the favor of Western and Northwestern storehouses. They may find wisdom for themselves in the advice of Governor Black.

Endorsements Worth Having.

A very striking instance of the influence which a newspaper editor, with the courage of his convictions, can uphold, and of how such an editor is esteemed by his contemporaries, is furnished in the remarkable endorsements now being given by the press of the Southwest, and particularly of Louisiana, to Maj. Henry J. Hearsey, of the New Orleans Daily States. Nearly every paper in that State and in the region tributary to New Orleans seems to have volunteered during the last ten days a tribute to Major Hearsey's worth and work.

The occasion for all these cordial endorsements of a confrere is Major Hearsey's candidature for the position of printer to the Louisiana constitutional convention, now about to be convened.

It is said if you want the true worth of a lawyer or a doctor, find out the real estimation in which he is held by his

brethren of the same profession. This is even more applicable to the newspaper man. Major Hearsey has been editing papers in Louisiana for about thirty years, and has steadily grown stronger in the esteem of his collaborators throughout the State, and even his political enemies are found "rising up to call him blessed." No wonder his election to the position of printer to the convention seems assured.

Soils of the South.

A most comprehensive discussion of the soils of the South and their treatment is presented in the February number of the "Southern States Farm Magazine," of Baltimore. The special articles bearing upon the subject are: "Concerning Soils and Their Improvement," by Col. J. B. Killebrew; "The Soils of Piedmont Virginia," by Dr. Robert L. Dabney; "Soils of the Atlantic and Gulf States," by Dr. Charles W. Dabney; "The Limestone-Clay Soils of the South," by Prof. Charles F. Vanderford; "Land Fertilization," by Prof. Martin P. Scott, and "Prevention of Soil Washing." These articles are by practical men, and have a practical bearing upon the agricultural future of the South. The editorial and other departments of the magazine are up to the full measure of timeliness and freshness, an important feature having been added in the columns devoted to correspondence from those persons who know the South and believe in it.

IN THE JOPLIN DISTRICT.

A Rich Zinc Region Awaiting Railroad Building.

Elsewhere in this issue of the Manufacturers' Record appears, under the heading, "Minerals of Missouri," an authentic, though only partial, report of zinc-mining operations during 1897 in what is known as the "Joplin District." As this report deals in facts and figures susceptible of verification, it is more significant than any ordinary story concerning the profits of mining. Still some of its statements are at first blush almost incredible, for instance this: "The net profits from the 'I Know' mine on an investment of \$5400 has been in the three years past \$56,699," or ten times the total investment. Here is another starter: "Mr. Allen has mined and sold from one acre over \$225,000 of lead and zinc ore."

While congratulating Joplin and the railroads that run through this district, and the miners and mine-owners and smelters thereabout on such a state of things, yet I am moved, by the foregoing reference to this news from Joplin, to call the reader's attention to another zinc field not far away, in fact in the same belt, where there has been little or no development, and where the opportunity for investors and men of enterprise is perhaps the most inviting today offered in the United States. In fact, the actual conditions in this new El Dorado offer infinitely more substantial assurances of profit than the very best leads of the Klondike country have so far been proven to vouchsafe.

What is probably the richest zinc-bearing spot in America is just across the Arkansas line southeast of Springfield, Missouri, in the counties of Boone and Marion, just south of White river.

To any man desiring to make a great fortune by taking the lead in opening up this country, such proofs of the magnitude and richness of these deposits could be given as to remove any shadow of doubt from a reasonable mind. Among

others personally familiar with this region, whose conservatism and prominence in business circles give weight to his utterances, is Byron F. Hobart, president of the Kansas & Texas Coal Co., of St. Louis, one of the greatest mining companies of the Southwest. Another is ex-Governor William M. Fishback, of Fort Smith, Ark.; another is a civil engineer who is a brother of Gen. Thomas Rosser, of Virginia.

Many miners from the Joplin district have recently tramped into this region—it has no railroad—and are unanimous in their testimony concerning the immensity of the deposits and the facility with which mining may be done. But zinc, unlike gold, can't be carried in bags across country for even thirty or forty miles and sold at a profit. Indeed you don't get merchantable zinc (spelter) directly out of the ground. There must be smelters built on the ground before zinc-mining is profitable, or else railways to haul the ores to existing smelters. There are plenty of smelters near enough to keep a railroad busy hauling ores from this Arkansas field—smelters already in operation within 150 miles (many within less distance), of which those of the Cherokee-Lanyon Spelter Co. have a daily capacity of over 200,000 pounds of spelter.

Why a railroad from Springfield, Mo., to this great zinc field (which is, moreover, rich in marble and timber and fruit), has not been built, is at first blush incomprehensible, but the public is just beginning to realize the value of zinc deposits and the growing uses of zinc as a metal.

The recent action of the legislature of Arkansas, offering large land bonuses as an inducement to railroad building, and the disposition shown by that representative body to safeguard capital coming into that Commonwealth, renders Arkansas today a singularly attractive field, and this zinc region is well worth the investigation of railroad men and investors.

THOMAS P. GRASTY.

Baltimore, Md., January 24.

LEGISLATION THAT MENACES.

The Proposed Increase of Power of the Interstate Commerce Commission.

The following communication from Maj. Jed Hotchkiss, emphasizing the evil that would result from the proposed increase of the powers of the interstate commerce commission, will find an echo among substantial men everywhere, and especially throughout the South, where Major Hotchkiss's name is a household word, by reason of his remarkable career as topographical engineer to "Stonewall" Jackson. In fact, it is admitted that much of the success of that military genius was due to Major Hotchkiss's encyclopaedic knowledge of the topography of the field of conflict and to his wonderful skill and resource in overcoming obstacles to concerted and rapid strategic movements.

So far as the development of the two Virginias is concerned, Major Hotchkiss has done a work which is simply incalculable in results. To begin with, without fee or reward, he has placed on record in permanent form a thesaurus of facts in the volumes of the publication known as "The Virginias," which have been worth millions of dollars to those two States, because they materially helped to turn the tide of railroad and industrial development in that direction twelve or fifteen years ago. It was through Major Hotchkiss's work that the Norfolk & Western

was turned into the great Flat Top coal-field, out of which about 30,000,000 tons of coal have been mined in the last ten or twelve years. The wonderfully complete and comprehensive article on Virginia in the Encyclopedia Britannica was prepared for that publication by Major Hotchkiss. As active today as ever in the practice of his profession as consulting and mining engineer, Major Hotchkiss takes a profound interest in whatever pertains to the welfare of the South, more especially to the Virginias, to the development of which he has given his life-work. These facts emphasize the importance of his letter:

Staunton, Va., January 24.

Editor Manufacturers' Record,

Baltimore, Md.:

I have read, with unusual interest, the article of Mr. Thomas P. Grasty in the Manufacturers' Record of the 14th, calling attention to the attempt of the interstate commerce commission to acquire not only enlarged, but positively dangerous powers through congressional legislation. "Demanding a dangerous privilege," as Mr. Grasty captions it, which is nothing more nor less than trying to have turned over to three irresponsible men (for three are a majority of that commission), to manage, as they may please, not only the business of all the transportation agencies of the entire United States, but also, in effect, that of every individual and body corporate in the whole country that has any use for internal transportation facilities.

The little "rider" which it is the programme to tack on to the pooling and anti-ticket-scalping bill, now before Congress, is one of the worst samples of centralizing legislation that has been presented since the days of "force bills" and their iniquitous kindred. If it should be enacted into a law it will, in plain English, give this ambitious commission unlimited power not only to fix all railway rates, but also, in the language of Mr. Nimmo, "to determine the commercial status of towns, cities and sections, and generally to dictate the course of commercial and industrial development."

Everyone that is at all informed in reference to the work of this commission in the past knows that little or no good has come to the general public from its attempted wholesale management of the railway traffic of the country. Its regulations and orders, some of which the Supreme Court has already declared illegal, have, in most cases, restricted rather than improved the transportation facilities of by far the larger portion of the country; and now, not content with having deranged and damaged the business of the carriers of trade, who can best be regulated by the controlling influences of competition and a desire for increasing business, it now seeks to obtain absolute control not only of the trade carriers and of the traders, but also of the business of the farmers, the manufacturers and of all others who furnish the things to be traded in, or who travel for business or pleasure; and, above and over all, to acquire to itself that more than regal authority which can say to one "go, and he goeth, and to another come, and he cometh," whether it be town, city or country, railway, farmer or manufacturer, traveler or stay-at-home.

A more remarkable example of the centralizing tendency of current legislation has rarely been presented for the consideration of a liberty-loving people that desires to be left alone, and, furthermore, intends to be let alone in the management and regulation of its private affairs, and you have none too soon, and none too earnestly, called attention to

this effort to establish legalized despotism and turn over the business of the entire country to the control of a triumvirate whose edicts will be more potent than those of either the executive or judicial departments of our government.

I can conceive of no legislation that could be more damaging or disastrous to all the interests of Virginia and her people than that in question. In a far larger measure than most people have any idea of, this State owes her remarkable recovery from the devastation and desolation of four years of almost ceaseless warfare within her borders to the rehabilitating and upbuilding agencies of the great railway systems that during the past twenty-five years have reached out their strong arms to nearly every portion of the Commonwealth, encouraging the development of its resources of every kind, and in hundreds of ways stimulating its people to industrial activity, the fruits of which have well-nigh restored to the larger portion of the State and the greater majority of its people that ideal condition of prosperity which was theirs before our gigantic civil war.

During all these years, as you well know, I have taken an active and somewhat prominent part in helping along the recuperation and development of Virginia, and in the zealous pursuit of this object I have been brought in contact with those managing nearly all of its lines of railways, and can recall no instance in which any of these failed to make most reasonable provisions for helping those who would help themselves, and for encouraging and facilitating traffic of every character; in many cases actually helping the interests of those applying to it to the disadvantage of their own interests. They have not only done this, but have all along been the most liberal contributors to every scheme that has had for its object the development of the State, the building up of its towns and cities, the promotion of its agricultural and commercial interests and the general condition and improvement of its people. All these good results have followed the unrestricted co-operation of the railways and the people of the State. Mutual interests and mutual good-will have regulated their transactions, and mutual benefits have resulted. Who is wise enough to predict what will happen and what antagonisms will result if our railways and our people should be so unfortunate as to be turned over, through congressional legislation, to the management of a machine commission that knows nothing of our local mutual interests and conditions, and will care less when it becomes absorbed in managing the business relations, of every sort and kind, of seventy millions of busy people.

We confidently look to our State's rights and people's rights guarding legislators to throttle this iniquitous piece of legislation, and humbly pray, "Good Lord, deliver us" from this threatened calamity.

Yours very sincerely,

JED. HOTCHKISS.

The second of the series of lectures on matters appertaining to textile manufacture will be given by C. H. Harding, of the well-known firm of Eslin, Harding & Co., of Philadelphia, on "The Selection and Grading of Fine Wools," in the auditorium of the Philadelphia Textile School, tonight, under the auspices of the Warp and Weft Club.

The Manufacturers' Record, than which there is no journal that watches with a more jealous, vigilant eye the interests of all the South.—Ellis County Mirror, Waxahachie, Texas.

ENTERPRISE OF SHREVEPORT.**Evidences of Progress in the Louisiana City.**

[Special Cor. Manufacturers' Record.]

Shreveport, La., January 22.

If progress is to be tested by the liberality of a people, their achievements in material benefits, and growth in all lines of development, public improvements, commerce, wealth and population, then Shreveport can easily be classed as a leader in the South for the past few years.

If an awakened and new life be the accepted measure of an ambition and modern civilization, culminating in the foundation and rearing of every element which constitutes the first promises of a great and permanent future, then Shreveport can fill that measurement, for it has acquired by her enlightened and liberal policy nearly everything which goes to make a thoroughgoing modern city of 20,000 people, thus adding to its fame in commercial circles as a most advantageous point for attractive investments, homes, industrial enterprises and all lines of business endeavors.

A general statement of its progress, though terse and clear, will be more convincing when accompanied by a specific and statistical bill of particulars—hence the exact facts of the liberal treatment to all enterprises seeking to secure a business home with this city shall be filed in evidence with the Manufacturers' Record.

The building of railroads is one evidence of a town's progress, thrift and prosperity, for where there is no commerce there will be no intersection and crossing and headquarters of railroads.

Shreveport in this line can safely challenge a comparison with any city of like size, for it now has six railroads entering its borders and two others approaching—one from the north and the other from the south—and now enjoys a passenger traffic from the coming and going of fourteen daily passenger trains. Shreveport has helped to build each of these, except the Vicksburg, Shreveport & Pacific. It has given in financial aid as follows: Texas & Pacific Railroad, \$100,000; Houston & Shreveport Railroad, \$80,000; St. Louis & Southwestern Railroad, \$50,000; Kansas City, Shreveport & Gulf Railroad, \$325,000; Shreveport & Coushatta Railroad, \$70,000; total, \$625,000.

The liberal and enterprising people of this city have contributed handsome cash donations to every manufacturing enterprise established here in the last ten years, and are willing to continue this splendid policy to all others who will found any industrial plant here which will augment its further financial and commercial supremacy.

A further evidence of the city's enterprise and liberality is to be found in the voluntary street improvements completed and under contract. The property-owners on Milam and part of Crockett and all on Texas street and avenue and road have voluntarily contracted to brick the entire streets with a nine-inch concrete foundation and a three-inch brick on its side as a surface, and ten blocks of this work has been completed, and is highly commended for its permanency and value. There remains about one and one-half miles more of this work under contract to be finished in the near future, and this will ultimately lead to similar improvements on all prominent streets. It is estimated that the work completed and that under contract will involve an expenditure of \$200,000.

The constitution of Louisiana does not permit the people to levy a special tax for schoolhouse construction, and thus our

city has labored under great disadvantages in this line; but its enlightened and liberal people, to meet this emergency, have by a special written contract agreed to pay an annual amount equal to five mills on their individual assessments for three years to erect at least three brick public schoolhouses to cost about \$50,000, exclusive of the ground.

This contract is signed and endorsed by 85 per cent. of the taxpayers, and all of the railroads and banks and other important corporations, and is now esteemed by our people to have been the highest and best test of their liberality and enterprise, as it tests their willingness to do greater things for their community than the constitution of the State permits to be done legally.

The money is now being paid into the public treasury, and the committee representing the contracting citizen-taxpayer is organizing to erect at once a \$25,000 twelve to fourteen-room modern school building.

The best architectural skill will be expected to prepare plans in the next four weeks. The committee is a very strong one and is constituted as follows: W. B. Jacobs, president First National Bank, president electric railroad six miles in length, compress owner and a very large taxpayer; L. M. Carter, president Merchants and Farmers' Bank, wholesale and retail druggist and jewelry dealer; Henry Florsheim, president Florsheim Bros.' wholesale dry goods company; Allen D. Morris, president Morris & Dickson's wholesale drug company, member of city council, member board of health; S. Goldstein, president Goldstein, Mabry & Co.'s wholesale grocery company; P. J. Trezevant, member of the legislature and for many years clerk of the house of representatives of Louisiana, a bank director, a large property-holder in the city and country; William Winter, a director in the First National Bank, an ex-member of city council and present member of the police jury for Caddo parish and chairman of its finance committee; Levi Cooper, a wholesale dealer in mules and horses, and livery stable, and proprietor of large property interests in the city; Sam B. Hicks, the active head and manager of the Hicks Wholesale Grocery Co., with an annual traffic of nearly \$2,000,000, and H. H. Hargrove, a journalistic writer and a member of the staff of the New Orleans Picayune.

Shreveport, the second city of Louisiana, located in the extreme northwestern corner of the State, the commercial depot and market for important and wealthy parts of three States—Louisiana, Arkansas and Texas—is the home of more than 20,000 people, with a commercial supremacy and radius of more than 100 miles in all directions, which area contains an agricultural population of nearly 500,000 people, whose chief crop is cotton, which is harvested to the extent of nearly 500,000 bales, most of which is fairly available to this market as the basis of extensive commercial traffic.

There is also an extensive interest in the Shreveport commercial domain of cattle, poultry, fruit, timbers, hides and wool, which, when combined with the cotton productions and industrial plants, go to make possible a \$100,000,000 per annum commercial volume.

Such a prospect for active money, business talents and experience should not fail to attract all classes of investors and home-seekers as the most inviting plum swinging from the South's commercial forest.

Shreveport, in addition to its agricultural, has an important trade, as made up by one large union cottonseed-oil mill, meal factory, one large foundry and sev-

eral small wood and iron shops, one wagon factory, one big saw mill and several planing mills and other woodworking shops, five brickyards, three cotton compresses, two fertilizer factories, the Kansas City railroad shops, working sixty-two men, while in the nature of public affairs, it has a United States government building, a State hospital and a splendid private infirmary, six fine white churches, water works and sewer system (the only one in the State), two electric street-car lines, electric fire alarm and paid fire department and many miles of well-paved sidewalks, three strong clubs, a building association with \$300,000 invested and first series matured, a public-school system of 1000 white children employing eighteen teachers, a colored system of 600 children and eight teachers, a fine private seminary for girls, a splendid academy for boys and two convents, three daily and four weekly newspapers, two large brick hotels and many smaller hotels and boarding-houses. The wholesale interest is conducted by about twenty large establishments, all of which have about fifty drummers on the road.

The wholesale grocery trade is computed to be \$5,000,000 annually. The wholesale dry goods trade in volume amounts to \$1,000,000 annually. The hardware, furniture, drugs and whiskey wholesale traders combined represent about \$1,000,000 annually, making a wholesale traffic of over \$7,000,000 for Shreveport.

The financial interest is conducted by four banks, two national, one State and one private, representing a paid-up capital and surplus capital of over \$750,000.

H. H. HARGROVE.

REACHING TO DEEP WATER.**Houstonians Actively at Work for a Ship Channel.**

[Special Cor. Manufacturers' Record.]

Houston, Texas, January 24.

The all-absorbing question of the hour in this city is the ship channel from Houston to the jetties at the mouth of Galveston bay. A bill has been introduced before Congress asking for an appropriation with which to build this channel and a delegation of prominent Houstonians will go to Washington in behalf of the measure.

One of the most unique figures in connection with the deep-water movement is the Houston Newcomers' Association, which organized a few days since and now embraces representatives from twenty-seven States. Only such persons as are property-holders or residents of Houston or Harris county and have become such during the past seven years are eligible to membership. The association carries at its masthead the following: "The chief object of this association shall be to aid in securing a government appropriation for the purpose of making the city of Houston a deep-water port."

Seven of the thirteen lines of railroad entering Houston handled in and out of this city in one year 3,658,398 tons of freight. No other city between Kansas City and San Francisco can make such a showing.

The home-seekers continue to come to South Texas in large numbers. Several hundred Mennonite families have located on South Texas farms during the last few months.

Great interest is being manifested in this city, and in many portions of Texas for that matter, in the Transmississippi and International Exposition, at Omaha, May 1 to October 31.

The Armour Packing Co. has chosen

Houston as headquarters for the distribution of packing-house products over Texas.

A delegation of forty-seven Kansas business men and farmers visited Houston last week. They were en route to Sabine Pass.

The Afro-American Fair, an event which the colored population of this State expect to make of national, if not international importance, has the earnest support of the very best business men in the city.

Commissioner Davis, of the Atchison, Topeka & Santa Fe system, is making a tour of Texas, and made an extended stay in Houston. Mr. Davis decided that Houston was particularly fitted as a location for the manufacture of furniture, and it is now about decided that such an industry is to be started, backed by local capital.

Both the Gulf, Colorado & Santa Fe and the International & Great Northern railroads are to build handsome depots in Houston.

IMPROVEMENTS AT AUGUSTA.**Work Begun on the New Water Works—Addition to Plants.**

[Special Cor. Manufacturers' Record.]

Augusta, Ga., January 24.

Active operations have begun on the new water works which are destined to be second to none in the Union. A railroad has been built to the site of the reservoir beyond the United States Arsenal in Summerville for the delivery of the piping and other material. Owing chiefly to the widespread publicity that the Manufacturers' Record gave the project there were twenty-four bidders for the contract, which was let to Messrs. C. H. Eglee & Co., of Boston, and A. J. Twigg, of Augusta, for \$292,000.

To form some idea of the magnitude of the work it is said that 1000 cars will be required to transport the material. The pipes come from Chattanooga, the pump and wheel from the R. D. Wood Co., of Philadelphia, and the filter from the New York Filter Co. The specifications first called for a Worthington pump, but subsequently, in consequence of a rebate of \$3000 from the Wood people, a Wood pump was decided on.

They will be a model and in their operation will excel in economy as well as efficiency. The reservoir will be 362 feet above the city, and the gravity pressure will be sufficient to put a stream over the loftiest building in the city without the aid of fire engines. Thus Augusta will have the purest water in the greatest abundance.

The Interstate Oil Works are adding to their plant an ice machine of the largest capacity, the machinery for which will be furnished by the De La Vergne Co.

The Augusta Brewing Co. is making extensive additions to its plant. The additional machinery required will be furnished largely by the Lombard Iron Works of this city.

The building of the John P. King enlargement is now completed and the machinery is now arriving and being put in place.

The subject of establishing a bleachery in this immediate vicinity is again being agitated, and it is understood that certain local capitalists have become interested in the project. It will be remembered that Mr. Charles Estes, president of the King mill, a short time ago purchased a site near the city with an abundant supply of water that showed a fine analysis. It is thought that the prospective company will be formed to utilize this purchase.

Work has begun on the Pickens & Early Railroad in South Carolina, W. J.

Oliver & Co., of Langley, S. C., having the contract.

In connection with the proposed line from Augusta to Newberry, which is already graded, and the connection through Sassafras Gap, this will form the shortest line to the West. Col. J. A. Hagood, D. H. Talley and W. A. Cleave are interested. It will develop a region of almost unexampled fertility and abounding in timber, and gain easy access to the great coal fields of Tennessee. Col. John H. Averill, an experienced and successful railroad man, is associated with the enterprise.

MINING OF CORUNDUM.

Suggestions Regarding a Revival of the Industry.

[Special Cor. Manufacturers' Record.]
Franklin, N. C., January 22.

The stagnation in the corundum mining industry seems to have reached a climax last year, as faint signs of a better market are discernible.

This industry, though twenty years old in Macon county, North Carolina, and comparatively little known outside the State, has its history, and the past three years form an epoch. Lower prices generally ruling in the mechanical arts and manufactures, have left their mark on the product of the corundum mills. The influx of cheap European and Asiatic emery has militated against development of corundum mines.

The future has no hope if the miner intends to rest on his oars and await better prices. The question to be considered is, can economy be practiced and the cost of production lessened so that the cleaned and sized mineral can be placed on the market at a profit? The failure to secure protection to this industry has greatly retarded development, as the country is difficult of access, most known deposits being fifteen to forty miles from rail connection, the veins or pockets heretofore discovered erratic in occurrence and content, and the exploring of a vein a most discouraging task.

The product has been mainly from the mines of one company, three out of four of whose mines have been for about three years closed. Economy can be practiced. This is true of every mine that has been worked, and along every line of progress of the ore from its extraction to its sale. Practical mining and mill men put in charge of any of the closed mines could put them on a paying basis if they have in the past been at all self-sustaining. But the hope of the future in the abrasive market lies in the recent discoveries made just on the brink of the watershed of the Blue Ridge mountains, on the Atlantic slope. The occurrence of corundum is here in very strong contrast with all other known deposits, and instead of being in detached pockets in a contact deposit with the dolomite, crysolite or serpentine rocks, the lode forms a continuous belt or zone that can be traced for three miles.

On my last visit I was enabled to examine the lode for one and a-half miles, but especially at one point, where development work had been carried on to a considerable extent by means of cross-cuts into the side of the mountain some 2000 feet above the river bed and 3500 above sea-level. At two points on the northern slope quarrying had been carried on, the vein dipping with the face of the hill at forty-five degrees from horizontal. A half-dozen cross-cuts at intervals of 150 to 300 feet showed the lode to be eight to twelve feet wide, and to have three "pay streaks" two to four feet each in width. I have examined ore from the quarry called by the miner the "Gold Standard Pit," which gave 45 per

cent. clean corundum from about twenty mesh to nuggets (crystals) the size of a hickory nut.

The corundum, unlike the crysolite family of corundums, is exceedingly uniform in color, general appearance and quality, different sections of the lode differing only in the size of the crystals, which are barrel-shaped even where so minute as to require a glass to examine them.

The ore or gangue is a fine tough blue mica shist requiring blasting, and in doing this an illustration of the toughness of the corundum crystals is to be had. A three-and-a-half-foot hole charged with dynamite was blown out, leaving a hollow at the point of the hole, the rock being powdered, and imbedded in this powdered rock was a double handful of crystals from the size of a pea to three-quarters and one inch diameter, which showed no effect of the force of the explosion.

There are about 1000 tons of the ore cribbed up at the Gold Standard, which from a distance looks much like the blue hard (iron) ores of Northern Michigan. These ores, due to the high specific gravity of the corundum and micaceous nature of the gangue, concentrate readily in the jig, yielding a very pure product.

No scale forms about the corundum, and a film, sometimes a casing of graphite, causes the crystals to separate freely from the rock.

I anticipate that the development of these mines will give a new impetus to the use of corundum as an abrasive.

LEVERETT S. ROPES, S. B.

MINERALS OF MISSOURI.

Sales of Lead and Zinc During the Past Year.

[Special Cor. Manufacturers' Record.]
Joplin, Mo., January 15.

This section of Southwest Missouri and Southeast Kansas has been unusually prosperous in the production of lead and zinc ores in 1897. The total sales for the year were zinc 355,951,060 pounds, lead 60,209,000 pounds, of a total value of \$4,726,302. The sales of zinc ore during 1897 exceeded those of 1896 39,284,710 pounds, and the sales of lead ore were an excess of 5,787,030 pounds, at an increase in value of \$864,762—over three-fourths of a million dollars. The average top price paid for zinc during the year 1897 was \$22.28 per ton, and lead \$21.32 per thousand, while the average top price for lead during 1896 was \$16.15.

Some big mining deals have been made during the year, and many investments have been made in the district by Eastern and Northern capitalists. Notably were the sale of North Empire lease to Eastern parties, who were represented by A. Corbin, Jr., for \$110,000; sale of the Scotia mines (eighty acres) to Providence (R. I.) investors for \$25,000, and the sale of the "Cock Robin" by A. P. & H. C. Cosgrove, of Joplin, to Thayer & Chadler, of Chicago, for \$10,000. A recent report from the manager of the "Cock Robin" says: "We commenced operations January 23, at which time there was only a small mill, and all ore was cleared on hand jigs. We run this mill until April 1, and then shut down thirty days to put up a larger plant, but from January 23 to June 1 we turned out and sold \$44,353.23 worth of lead and zinc, the net profits from said sales being \$15,518.53. The mining is being done at 123 feet, while the better runs of ore are deeper down."

The net profits from the "I Know" mine on an investment of \$5400 has been in three years past \$56,699.

Patrick Murphy has received in royalties from seventy acres of land in the past two years over \$100,000.

The Troup Mining Co. has paid royalties to the land-owner in two years \$42,631.42, or at the rate of \$1066 per acre on forty acres of land.

A Mr. Allen has mined and sold from one acre over \$225,000 of lead and zinc ore.

The Chatham land-owners have received in royalties from the miners in two years \$121,337.87.

Thomas Connor has received for royalty \$75,000 from one acre of zinc land.

A. P. COSGROVE.

INDUSTRIES AT BIRMINGHAM.

Evidences of Improvement All Along the Line.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., January 25.

The market seems to be making an effort to get out of the eddies that have sucked it to the shore of unsatisfactory prices and to float in the current of demand to a port of better values. In the endeavor to right itself there must necessarily be some variations from the figures indicating current prices. During the past week only one instance has leaked out of any deviation to lower values, while it can be said that prices accepted the week previous were declined the past week. There seems to have been a pretty free feeling for soft spots, without success following as a reward for efforts. In some instances \$6.25 net (equal to \$6.41 regular) has been bid for gray forge, cast with B. and L., only to be declined, and \$7 net has been refused (same terms) for No. 2 foundry. These bids are but a trifle under asking prices, and their refusal is good evidence of faith in values. Certain grades are getting ragged in stock piles. The leading interest are indifferent sellers of all grades but No. 4 F. F., as they are well sold in all up to April. And you will find others pretty well sold up in Nos. 3 and 4 foundry and running uncomfortably close on No. 2 foundry for nearby delivery.

So far as furnace stocks are concerned, they are practically "nil," and this fact cannot be too emphatically stated, for it leaves nothing to check an advance when demand comes to the front. And that is now increasing at a healthy rate. The past week showed a fair increase in this respect, and the presence of some important buyers in the market gave a zest to it and indicated the beginning of a greater activity. In basic iron the sales now cover production up to August. No better statement than this announcement could be made of the appreciation by the trade of this grade, and of the advance to favor it has made.

The export trade is coming to the front again, with every indication of a gratifying growth. The orders completed the past week were up to the average reported of late. The inquiries were larger and the week closed with some offerings to be heard from in confirmation before being reported.

As evidence of a growing interest in the market, it can be stated that the leading interest here was requested to name price on 100,000 tons to go into the warrant yards. As they were not in position to do this, nothing came of it. Though the warrant yards are well stocked, diligent inquiry failed to find any transactions or movement in warrant iron either of significance or interest. At the rate they are going now the season promises for both rolling mills to be the largest in volume of business in their history. The "let up" (incident to the holidays) in their

business has given place to renewed activity.

At a called meeting of the new Avondale Cotton Mill stockholders last week progress was reported and authority was granted for the issuance of \$100,000 in bonds, for which a purchaser was ready at acceptable terms. It was developed that \$137,000 out of the \$150,000 stock subscribed by local parties had been paid in, while only about \$20,000 out of \$53,000 subscribed by Eastern parties had been received. The contrast was a surprise, and created some comment. About 2500 bales of cotton has been secured for a starter. As fast as it is received the machinery is being placed, and probably in March the big mill will be at work.

The traction lines are fast assuming metropolitan airs that are inseparable from metropolitan improvements. A large and complete power-house is being erected by the East Birmingham line, and contracts for the engines made with the Birmingham Foundry & Machine Co. The boilers go to Crellin & Co. The Means-Fulton Co. has just completed a job for Mexico. The Alabama Bridge and Boiler Works are completing important furnace work at Sheffield, Ala., water and electric-light works at Lafayette, La., and also in New Orleans. The Warrior Machine Works reports an improving business, with good sales of machinery and lots of work coming in sight. The Hood Machine Works gives a similar report, and adds that to keep towards the head of the procession and up with the latest improvements it is adding machines to its machinery department.

The one who takes a trip to our various industries and can't see evidences of an improvement among them is simply blind. Some report now that they have all the work they can comfortably attend to, while there's not one among them "putting up a poor mouth."

J. M. K.

Improving a Tobacco Factory.

The large tobacco factory of P. H. Hanes & Co., of Winston, N. C., one of the most important tobacco manufacturing concerns in that section, resumed operations last Monday after a two-week shut-down, work having been stopped in order to install a large amount of additional machinery and to make other important improvements for the purpose of greatly increasing the capacity of the factory. Messrs. Hanes & Company advise the Manufacturers' Record that the present outlook indicates that the coming year's business will be the most extensive and profitable in the history of their establishment. They have purchased a large stock of fine-quality leaf tobacco from which to manufacture their celebrated brands.

Louisiana Annual Sugar Report, 1896-97.

Publishers, A. Bouchereau, New Orleans, La. Price \$3.

This annual just published contains accurate statistics, by parishes, of all the sugar raised throughout Louisiana, the name and postoffice address of every planter in the sugar parishes of the State, the location and product of each plantation, distance from New Orleans by water and railroad and railroad stations, description of sugar-houses, apparatus, etc., in use. It contains also much general information, table of the weather and crops, average condition of the sugar and molasses markets, with quotations and receipts for each month of the year, editorials, etc.

Secretary Martin, of Virginia, has introduced in Congress a bill to use part of the Arlington estate for agricultural experiments.

HIGHLANDS OF THE SOUTH.

Their Opportunities for Industrial Development by Electricity.

[Written for Manufacturers' Record.]

Having just revisited, after the lapse of a generation and as a lagging veteran, the beautiful highlands of the South, which the care-free eyes of youth saw last under the black cloud of war, the writer is moved to address the following reflections to his newly-made Southern friends through the medium of your valuable journal.

Lord Kelvin, perhaps better known as Sir William Thompson, who is easily in the very first rank of electrical scholars and philosophers, is credited with a pregnant and suggestive remark, elicited by inspection of the electric-hydraulic development of industrial power at Niagara Falls during his recent visit to this country. Seeing, with vision trained to the point of prophecy, what is there foreshadowed, and speaking of the little-known Falls of Foyre, in Scotland, and their similar electric-hydraulic development, he said: "It will give life and prosperity to the Scottish Highlands and restore to the people cottage industries."

The keenest regret of philanthropists and the blackest cloud upon the social horizon in all the years of industrial development by steam power has been the concentration of population for work and living, with its long train of social and sanitary ills, made necessary by the economic defects of a motive power which cannot be widely or economically distributed, which cannot be stored, but must be used as made, and which cannot be sub-divided readily or into small units.

But as nobody knows better than Lord Kelvin, all these things if possible with steam, are not only possible but practical with electricity, which thus permits and encourages dispersion of industrial population, instead of the concentration made necessary by the many defects of steam as a motive power for factory use. And the comparison holds as well in transportation, since that service by electric cars always tends to widen residence areas, though sometimes concentrating trade, while steam-train service operates to concentrate residence, even when widening business districts.

Electric-hydraulic development, then, means ideal living conditions for skilled workers, without sacrifice of power facilities and without fear of destructive competition with crowded, unhealthy factory workers. Even the factory populations of the future may and will live and work scattered along electric railways, while the power they utilize will be produced among the neighboring mountains. All this and more, perhaps, the trained mind of the modest, reticent Englishman realized and expressed in that single sentence.

The writer's recent opportunities for special observation of water-powers among Southern mountains have deeply impressed him with the force and bearing of this line of thought in relation to the already wonderful development of the new South. The greatest clog upon Southern industrial progress under old conditions seems to have been too much concentration upon too few resources or products, and after all the wonderful progress so creditable to the new generation her greatest need today seems to be a wide and increasing diversification of industries. Few of the South's true friends will be found to dispute these opinions.

She especially needs manufacturers—small manufacturers where large ones are impossible. Already factories are clustering along some Southern mountain streams so closely as to multiply their capacity many times in a few miles, for

this is one advantage of water-power, that even repeated work does not exhaust or dissipate it; unlike coal, which has gone forever with a single effort.

The governor of one Southern State in a recent newspaper interview named a single river, almost unknown outside State lines, which he said was wasting "power enough to run all the spindles of New England."

Most of the water-powers the writer inspected, even of those already improved, were under old conditions—had to be used close to the stream and were inaccessible or difficult of approach by teams and distant from railroads or transportation lines for conveyance of raw material and product. The very best and greatest of them are useless for these and similar reasons, except by electric-hydraulic methods, which alone are fit to cope with and solve the problem of their ready, economical and cheap development. While the South may have no streams like Niagara or the St. Lawrence, capable of developing a single station to the point of hundreds of thousands of horse-power, the writer recalls as an instance one branch railroad of less than twenty-five miles in length which ran upon a narrow divide between two famous rivers aggregating several hundred thousand horse-power (according to reliable surveys) along that short line and within five miles of it, and capable of single developments up to 20,000 horse-power.

Of all this industrial capacity there was developed less than 100 horse-power, giving employment to about 200 people, but subject to the daily tax of wagon hauling for all supplies and products over three miles mountain roads to the nearest railroad station, with all the business and social disadvantage consequent upon such isolation.

As the climatic conditions of this district are ideal, the writer ventured to picture its future under electric-hydraulic development, with factories dotting the foothills along the electric railway using power from wheels set among the nearby mountains, and allowing for masters and men all the advantages which we delight to call modern, without sacrifice of a single good feature of old-time home life and citizenship.

With the short hauls by rail for raw material, with the superior climate and easier and better conditions of living, and, above all, with the "new crop" native enterprise and skill fast coming to the front in the South, as the writer found it, some of these future manufacturing communities in the Southern Highlands may push New England hard in the race for supremacy before the new century is well advanced beyond its infancy. Little is now impossible to enterprise which dares. He found practical and technical knowledge in evidence to a surprising amount and extent among the younger Southerners. But, wherever lacking, it may be supplied from many well-known markets. Electric-hydraulic development would be unnecessarily costly and difficult, if not impossible, in some of the Southern States at present for want of legislation giving water-power companies the right of eminent domain and power of condemnation for transmission lines, flumes, etc. But the mere statement of the fact that without some such law any ignorant or alien landowner may veto or blackmail improvement bringing prosperity to himself or a waiting community, such a statement to patriotic legislators should bring immediate relief, as already appears where the proper representations have been made.

Of other objections we have but two—and their weight is not to be denied—re-

maining, namely, the lack of the habits or aptitude for organization, and last, but greatest of all, the lack of capital. Possibly neither of these may apply to some of the smaller enterprises contemplated, but one of them certainly, and both of them probably, do to all propositions on a large scale. Outside assistance may be necessary in one or both of these cases, and organization usually precedes the search for capital, which may be repelled by preliminaries too long drawn out. Next to consultation with a competent engineer, capable of judging the elements of an enterprise and planning the mechanical scope of its improvement, nothing is so important a preliminary to success in securing capital as the best procurable presentation or report of the enterprise or property.

Its writers should have not only technical knowledge, but experience in the preferences and prejudices of investors and tactful control of simple and forcible language. It is first impressions which tell here, since a project condemned or found void of interest on a first hearing has no second chance in the same quarter. The paper and preliminary work for any important scheme is sometimes more valuable and often more tedious than its mechanical execution, and mistakes or omissions in the former are often more fatal than in the latter department.

A concise but comprehensive report by a disinterested trained hand is not only the best advertisement for general or public interest, but the best reference for special or individual interest which any scheme can have. It may not be able to save a worthless project, any more than an advertisement will find buyers for rotten eggs, but it will make success for any good scheme whenever possible.

Such a report will ignore the partialities and narrowness of promoting owners to seize upon the really valuable features, which, by their prominence, not only arouse interest, but assure success. It will avoid mistaken detail to emphasize general merit and hold and concentrate attention upon vital elements. Its standpoint will be near enough to that of the capitalist to reach and impress him and its writer will know how to stop while the interest still holds. His equipment should be broad enough to suggest and qualify the proper comparisons between the enterprise in hand and other like schemes competing for the investor's attention.

Nor is such help too difficult of access or too costly for use by ordinary meritorious, undeveloped enterprises.

In this age of specialists, when the very merchants have their advertisements written by professionals whose sole duty it is, there are many competent men whose help, on the lines described, can be had and should be had, not as a luxury, but a necessity, in opening new channels of enterprise.

If the man "who makes two blades of grass grow" where was but one is a public benefactor, how worthy is the fame of him who creates or helps to found an honest industry which can work hitherto worthless material into form and value, to the permanent profit of communities otherwise unborn? To be numbered in the ranks of this industrial army is the highest ambition of your contributor.

S. J. MACFARREN.

Pittsburg, Pa.

The business men of Cordele, Ga., have organized a Board of Trade, which includes the principal merchants of the town.

The Mississippi senate has adopted a resolution favoring federal control of the levees.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

IMPORTS AT NEW ORLEANS.

Determined Plans to Increase Their Importance.

One of the most significant events at a Southern port in the new year is the determination to supplement the export business at New Orleans by developing its imports. This was emphasized by the organization of the firm of F. F. Hansell & Bro., Limited, as importers of dolls, toys, druggists' sundries, stationery and fancy goods. The New Orleans Times-Democrat explains the move as follows:

"For seventeen years Mr. De Witt C. Baker, a Texan by birth, had been identified with the doll and toy import trade of New York, and for many years he had been traveling in the South for a house which does a business of many millions annually. Last spring, while traveling for this New York house, Mr. Baker paid his annual visit to the local firm of F. F. Hansell & Bro., and while he and Mr. F. F. Hansell talked prices, it occurred to Mr. Hansell that this city, being a leading export port, and therefore naturally a port of import, there was no reason why F. F. Hansell & Bro., instead of buying as jobbers from an importing firm in New York, should not be importers and sell to jobbers in this city and nearly every other city from Pittsburg to San Francisco and from Galveston to Seattle.

"Mr. Hansell asked Mr. Baker what he thought of New Orleans as a location for just such an importing house as he represented, and Mr. Baker unhesitatingly replied that, geographically, New Orleans was, in the terse language of the day, 'all right.' Transportation and other factors of commerce had to be considered, but as a well-posted business man, Mr. Baker thought from the first that New Orleans could more than hold her own with New York as an importing point.

"The conversation between Messrs. Hansell and Baker that day last spring was but the forerunner of many another, and Messrs. Hansell and Baker both looked further and further into the question of the practicability of establishing here an importers' agency similar to the New York houses. The further they looked into the matter the more both gentlemen became convinced that the idea was thoroughly practical, and then steps were taken to reduce the idea to practice, Mr. Baker becoming a member of the board of directors of the new firm of F. F. Hansell & Bro., Limited."

Close upon the move comes the announcement of the addition of a new vessel to New Orleans's foreign trade. The vessel is one of the big fleet of the United Steamship Co., of Copenhagen.

Speaking of the work being done by the steamship company, Mr. Solgaard, the Danish consul at New Orleans, said to a Picayune reporter:

"Why New York should longer hold this city's import by the throat is something beyond understanding. I hold it as self-evident, and I think that any man will agree with me, that the merchant who buys goods which have to pass through two or three or four hands before they reach him and makes no effort to push those hands aside and deal directly with the maker has not the acumen which is essential to business success these days.

"The time is rapidly approaching when, if not the older generation of business men, at least the present one, will take this matter in hand and things will come in New Orleans's way in a resistless tide. New York's combined energies and

strength will not be able to stop it then, and this city is going to grow in size and wealth in a manner that will amaze the country.

"I tell you when one reflects for a moment what is back of New Orleans—that vast tract of the richest and most productive and practically limitless territory on the face of the globe—there can be no mistake as to the calculation on its destiny. The trouble is naturally the beginning. I will illustrate for you. I note that in this city today there are several people who, in their business, buy wines and beer from across the water. There is not a single one of them, as far as I know, who do New Orleans the justice or seem to appreciate the importance of having their imports come directly here. They buy in New York of the importer there. The goods, before they reach here, have to undergo the expense of reloading on another ship, or coming a great distance overland, with all the additional charges of rehandling, and leaving all the money that should legitimately and rightfully be spent here, in New York. Now, if you ask any of these gentlemen, who are presumably deeply interested in this city, possessing properties here (and the growth and possibilities of their business largely depending on the growth and possibilities of New Orleans), if you ask them why they do such unreasonable things—things to the hurt of their own business and of the city of New Orleans—they will answer you that there is not sufficiently frequent sailings from abroad to this port to enable them to do otherwise.

"Now, when they all argue that way and continue to let New York gobble up what is really New Orleans's, pray tell me when is the time to arrive when this city will get a more frequent service? If they persist in letting New York do the business, why should they expect the ships to come here? Ships need cargo to make their business go. * * * Why, it's the same old story in every possible avenue of trade. Take even the hire on money. A moneyed interest here wanting money immediately goes to New York to get it. It pays 8 per cent. That very same concern in New York is making this advance on money it is hiring from abroad at 3 per cent. The retail user of it here has to pay not only that difference, but that additional amount the lender here has to make. And then we wonder sometimes why business does not boom better. Why on earth has New York to do our borrowing abroad for us? Why should we send on 2, 3 or 4 per cent. to remain in New York? I have had money offered me at 3 per cent. in Europe, when I would have had to pay 8 per cent. for it in New York, and more for the same amount here.

"It is so in every possible ramification of business. What is the reason we cannot get out of that and do some business of our own account?

"One thing is certain, and that is if the older men who have always had their eyes fixed on New York, and have by every act been heaping up business of that opulent city to the derogation of the interests of their own city—if they continue to do this sort of business, there is a present generation of wide-awake New Orleanians who are going to leave them out of sight.

"I do not say it out of flattery or idle compliment to your city. I have seen a great deal of the cities of the world. If I were called upon to do it, I tell you frankly I do not know in the world a single city whose advantages at all match the incomparable natural advantages of this city. Now ask yourself the question: What has New York back of it? Absolutely nothing—rocky hills, cold climate,

unproductive, worn-out land—absolutely nothing tributary to its mighty commerce, except the enterprise of the people who have gobbled up not only the port business of the North and East, but that legitimately belonging to New Orleans. With the same spirit of enterprise, what could not this city do, backed as it is with the richest valley in the world and one of the largest—with an artery of commerce the mightiest in the world, and trunk lines of railway covering all that territory.

"The destiny of this city is assured. But it must be taken actively in hand by the men who make it. They are to watch out for its interests, and quit giving its business away to other ports. They are to supply all the demands of their territory now paying tribute to New Orleans. They have to be strictly business. It is going to be difficult to turn the tide, but it is already turning, and once got under way, nothing can stop the torrent. It is coming as sure as there is a sun.

"The great steamship company of my country is anxious to develop this business. It will do so if it is afforded an opportunity, but for heaven's sake let's give them the opportunity to begin. Let us use common sense. All these things work together. The moment the import business now coming to the Mississippi Valley, through New York, begins to enter at New Orleans, at that moment it will be possible to lower the rate on the export of grain, etc., correspondingly. The outgoing of grain will consequently increase in ratio and the import will keep pace."

Shipyard for Mobile.

The Commercial Club of Mobile has decided to work for a shipyard at that port. In a special report on the subject it was said:

"The time has now come when shipbuilding should be commenced, at least at the port of Mobile. All the raw materials needed in such business—steel, iron, wood and coal—can be furnished in unlimited quantities at this port, at less cost than any other port, perhaps, in the world. It is now settled beyond question that the mineral district of Alabama, of which Birmingham is the center, will fix the price of pig iron, steel billets and coal for the world. Mobile is the only seaport of Alabama, and has connections with the vast mineral sections of the State, both by water and railroad. Over 2000 miles of navigable river, draining an area filled with iron and coal and covered with fine timber, debouche at Mobile. Three trunk lines of railway come to the city, and three others—one of which is now under construction—will no doubt be built in the near future. Most desirable location can be secured for shipbuilding on Fowl river, Dog river, Fish river and Tensas river, emptying into Mobile bay, or on Mobile river or Chickasabogue creek above the city. Any of these sites would be healthy, with an abundance of fine fresh water, and ample depth for launching large ships. Good foundations can be had on any of these streams."

New Steamers Ordered.

The Baltimore Steam Packet Co., which operates the Old Bay Line of steamers on Chesapeake bay, has given a contract to the Harlan & Hollingsworth Co., Wilmington, Del., for a new steamer which will probably be the fastest on the waters of the Chesapeake bay. She will be 250 feet long, forty feet beam, with accommodations for 300 passengers. The vessel is to be propelled by twin screws, and will cost \$250,000. Her interior will be in hardwoods, and no ex-

pense will be spared to make the vessel complete in every respect. The new boat will be constructed under the supervision of General Manager John R. Sherwood, of the Old Bay Line, under whom the steamers Georgia and Alabama were constructed. It is understood that the ideas of General Manager Sherwood have been largely embodied in the plans of the new vessel, which will have a speed of about twenty knots an hour.

The New York, Philadelphia & Norfolk Railroad Co. has ordered a new steamer for its service across Hampton Roads between Norfolk and Cape Charles, Va. The vessel will be 230 feet long, forty feet beam, and will carry 250 passengers. She is to be built by the Roach Shipbuilding Co., of Chester, Pa.

Southern Goods for China.

The value of Southern exports to New York is illustrated by a shipment of sheeting which recently arrived at the metropolis for loading on shipboard. It consisted of 1000 bales and was placed on board a coasting steamer at Charleston to be reloaded at New York for Shanghai. This is only a portion of the consignments of Southern goods sent to different markets of the world through New York which will be shipped direct from Southern ports, as steamship owners and agents realize the opportunities for direct lines from cities along the South Atlantic and Gulf coast.

Iron Exports from New Orleans.

The importance of New Orleans as an export point for Southern iron is shown by a recent statement of A. V. Carpenter, of the Tennessee Coal, Iron & Railroad Co. According to Mr. Carpenter's statement, this company has already shipped nearly 200,000 tons of pig iron through New Orleans alone, not including that which went by way of Mobile and Pensacola. The grain shipments through New Orleans have interfered with the business to a certain extent, as this movement has made it more difficult to obtain satisfactory freight rates.

South and West Congress.

The annual South and West Congress, which is to meet at Tampa, Fla., on February 8, 9 and 10, will doubtless attract new attention to the growing importance of Southern export trade. In the past these meetings have been attended by representations of Western people and have been widely commented upon in the newspapers of that section. The convention this year is under the auspices of the Tampa Board of Trade.

Direct to Liverpool.

The first steamer of the new line between Port Arthur, Texas, and Liverpool will include canned meats, lard and boxed meats in her cargo. The vessel's destination is Liverpool, and most of her freight comes from Kansas City and the Northwest. As already stated in the Manufacturers' Record, the Kansas City, Pittsburg & Gulf has arranged for direct service between Port Arthur and Mexico and the West Indies.

Jottings at the Ports.

An experimental shipment of 300 steers has been made by steamer from Galveston to New York.

A delegation of live-stock dealers from Colorado has recently examined the Galveston harbor with the view of utilizing it for exporting.

The rivers and harbors committee of the House of Representatives has made a favorable report on the joint resolution for a survey to determine the prac-

tibility of securing a navigable channel thirty-five feet deep from the Gulf through the southwest pass of the Mississippi to New Orleans.

The Nicaraguan canal convention at Kansas City, Mo., appointed a committee to urge at Washington the legislation necessary for the completion of the canal.

A representative of the D. R. Francis Commission Co., of St. Louis, which is one of the largest grain exporters in the West, has recently been in Galveston examining the facilities of that port for exporting cereals. It is understood that this concern has made arrangements to send a large proportion of its European business through Galveston as a result of its investigation.

A Washington dispatch announces that the Senate has now under consideration a resolution providing for an examination and survey of a ship channel from the northern end of the Port Arthur ship canal to the mouth of the Neches and Sabine rivers. If this improvement is carried out it will greatly facilitate shipments of lumber from the districts along the rivers in question and enhance the importance of Sabine Pass from a commercial standpoint.

The question of exporting oysters to Europe is attracting the attention of Baltimore oyster dealers. It is believed that oysters can be sent from Baltimore as successfully as from New York, from which place it is estimated that 150,000 barrels were shipped last season. Copenhagen, Denmark, it is stated, uses from 100 to 500 barrels daily during the season, all of which come from New York and sell at from \$5 to \$7 per barrel. About 1000 medium-sized oysters can be packed in a barrel.

The improvements which are at present in progress at Biscayne Bay, Fla., will considerably deepen the ship channel and anchorage so that it can be utilized for much larger vessels than at present are permitted to enter it. It is understood that Mr. H. M. Flagler, of the Florida East Coast Railroad, is considerably interested in the matter, and the improvements are being carried out according to his plans. This harbor is the terminus of the Florida East Coast Railroad, and a steamship is now running between Miami, its principal port, and the Bahama Islands.

The annual meeting of the Baltimore, Chesapeake & Atlantic Railroad Co. resulted in the election of the present officers. John E. Searles is chairman of the board of directors and John S. Wilson, president of the company. The annual report showed net earnings of \$81,543.53. After deducting the interest on bonds a balance is left of \$21,300.

The National Fishery Congress at Tampa, Fla., organized the International Fishery Association with Dr. Alex. Agassiz, of the United States, president; M. Perrin, of France, first vice-president; A. Nelson Cheney, of New York, second vice-president, and Hugh L. Smith, United States fish commission, secretary and treasurer.

The Northern Central Railway Co. at Baltimore has recently purchased one of the largest portable lifting cranes ever constructed. It was made at Bay City, Mich., and can raise a weight of seventy-five tons. It has been tested by elevating a box car and transferring it from one track to another.

It is announced that J. S. Cullinan, of Washington, Pa., has contracted for 100,000 barrels of Corsicana (Texas) oil delivered at the tank of the producers at fifty cents a barrel.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

VALUE OF RAILROADS.

Difference Between Having and Not Having Them.

The Wilmington (N. C.) Messenger, in a very sensible article on railroads, says: "Maj. Charles L. Hinton, the high-toned, admirable, efficient treasurer of the State in the good old honest days in North Carolina, when men of highest character were in office, made a speech in March, 1849. A correspondent of the Henderson Gold Leaf sent an extract from what Major Hinton said, and it is instructive. He was speaking in behalf of the Raleigh & Gaston Railroad, then not well equipped, but now in the very best manner. He was showing how the farmers along that road had been greatly benefited by it. To do this we have the following figures, and they may be trusted, for no man was more careful and scrupulous than he in his statements. He is presenting facts to show how the tobacco growers of Granville county, then the third largest county in the State, and one of the best, but since uselessly sliced and dismembered to make in part the small county of Vance, were blessed and helped by this railroad. He said: "In 1840 there was raised in Granville 3,988,822 pounds of tobacco, which reduced to hogsheads of 1500 each, makes 2659 hogsheads. "Before the establishing of the Gaston road \$1.25 per 100, or \$18.75 per hogshead, was the usual price paid for carrying it to Petersburg, the main tobacco market for North Carolina. "Twenty-six hundred and fifty-nine hogsheads at \$18.75 for transportation cost \$49,827. Same at sixty cents or \$7.50, present railroad rate, \$17,265. Net saving to the planters, \$32,572. "In 1847 there was carried from Henderson, the principal depot in Granville, 1802 hogsheads of tobacco; the balance was deposited at other places on the road or carried down the Roanoke, upon which Granville county borders. "Now, if someone would obtain and publish the present rates, very much lower, no doubt, than they were in 1849—nearly a half century ago—it would be seen how very much more the tobacco men are favored now than then. And so are all merchants, traders, etc. Scrutinize the figures. In 1840, when it cost nearly \$50,000 to transport a given amount of tobacco, in eight or more years after it cost but \$17,000, or but little more than one-third. We doubt not that the rates now would show that it costs not more than one-fourth to transport the same weight of tobacco that it did fifty years since under the old wagon, bad roads system, that killed men and horses and wore out the wagons soon. "We advise the farmers and merchants and buyers to be very wary and to consider well before they lend themselves to the work of destroying or crippling railroads, the great carriers, the speedy and sure carriers for North Carolina and the whole country. When enemies rise up to smite the interests of men who have invested their funds in railroads, or to drive out other investors, and you are invited or persuaded to take a hand in demolition or injuring the railroads already constructed, think of the past, of the embarrassments and difficulties of the men of that time—of the great cost to farmers to get their produce to markets, of the high cost of hauling goods to the merchants. If you cannot build up, do not tear down."

A South Carolina Enterprise.

A dispatch from Charleston, S. C., announces that a Philadelphia syndicate, of which D. L. Risley is at the head, has purchased the property of the South Carolina Land & Lumber Co. This consists of about 18,000 acres in the vicinity of Chicora, S. C. The company also built what is known as the Berkeley Railroad, extending through the property from Monk's Corner to Chicora, which is now called New England City. It is stated that the new owners will extend the railroad through Eutawville, a distance of sixteen miles, making its entire length twenty-six miles. It is understood that a number of Northern colonists will be located at New England City, and that its manufacturing interests will be increased. Edward Moore and J. L. Costo are associated with Mr. Risley in the matter.

To Open Up Iron-Ore Mines.

A dispatch from Cartersville, Ga., states that the Iron Belt Railroad Co. has been formed to develop what are known as the Sugar Hill iron-ore beds, near Cartersville. A railroad six miles in length will be built to reach the property controlled by the company, which amounts to 16,000 acres. John W. Akin has been elected president of the company, and the contract has been let for the road to T. B. Redmond.

A dispatch from Leeds, Ala., states that the Southern Railroad Co. has let a contract for eight miles of road to the brown ore beds near that city, which are owned by the Sloss Iron & Steel Co. This line is to be standard gauge, and will be the means of bringing the ore direct to the company's furnaces. Its enterprise was referred to in detail in a recent issue of the Manufacturers' Record.

Northern Capital in Mississippi.

The Leaf & Pearl River Railroad Co., recently incorporated, proposes to build another line in Mississippi which will aid in opening up a section of the State which at present is nearly destitute of railroad facilities. The company proposes to build between Hattiesburg and Columbia. At the former town the road will connect with the Gulf & Ship Island, which reaches tidewater. The latter road was completed largely by Pennsylvania capitalists, and it is understood that their success has induced others from the same State to take up the new enterprise. The company includes several parties from Scranton, Pa., and J. J. Newnan, of Hattiesburg.

Interchangeable Mileage.

D. D. Martin, manager of passenger traffic of the Baltimore & Ohio Railroad, says that the withdrawal of the Michigan lines from the interchangeable mileage agreement will not affect the popularity of the ticket. "The harmonious manner," said he, "in which the lines interested are working is very encouraging, and the sales are increasing. Conductors tell me that the ticket is growing in favor with the traveling men, and say the only objections come from men who have been accustomed to taking advantage of both the railroad and their employer. I am positive that the lines party to the agreement will never return to the old form of mileage."

Important Alabama Line.

Construction work is rapidly progressing on the branch of the Plant system between Newton and Elba, Ala. A dispatch from Montgomery is to the effect that the line will be ready for operation in the spring of the present year. It is

thirty-two miles in length and traverses a section of South Alabama which comprises a rich agricultural territory, also several extensive tracts of timber land. The construction of this line will be of much importance to Montgomery, as it will make it the principal market for a number of towns in Southeastern Alabama.

May Enter Chicago.

According to a dispatch from Chicago, the Kansas City, Pittsburg & Gulf Railroad Co. is making arrangements with the Chicago, Burlington & Quincy system by which it will have Chicago as one of its terminal points. It is stated that a contract is being prepared by which the former company will have the use of the Burlington tracks for its passenger and freight trains to Chicago. This arrangement will allow the Kansas City, Pittsburg & Gulf to have through train service between Chicago and the Gulf of Mexico.

Another Texas Line.

In a letter to the Manufacturers' Record, Mr. W. G. Sneed, chief engineer of the Vining & Coleman Railroad Co., states that twenty-five miles of rails have been purchased for the line, and the first section of twenty-seven miles will be built this year. The total length of the road is to be sixty-six miles. The work of clearing the right of way has already begun. Mr. Sneed's address is at Austin, Texas.

Railroad Notes.

D. M. Rea has been appointed agent for the Central of Georgia Railroad Co. at Mobile, Ala.

The Louisville & Nashville Railroad Co. has ordered 12,000 sets of air brakes for its freight cars.

The Consolidated Street Railway Co., of Atlanta, has elected Ernest Woodruff, president, in place of Joel Hurt, resigned.

It is announced that the Memphis & Charleston Railroad will be sold by order of the court on February 26 at Memphis, Tenn. L. B. McFarland has been appointed commissioner to make the sale.

The company now owning the Chattanooga & Lookout Mountain Railroad has elected the following officers: J. T. Crass, president; Vernon Whiteside, vice-president; William Cummings, secretary.

The December report of the Northern Central Railroad Co. includes the report for the twelve months of 1897. The net earnings for this period were \$1,934,336, compared with \$1,643,497, an increase of nearly \$300,000 for the year.

The Laurel Fork & Sand Hill Railroad, extending from Volcano Junction, on the Baltimore & Ohio Railroad, to Volcano, W. Va., has been sold at receivers' sale to Stiles & Bros., Parkersburg. It is three and a-half miles long.

P. W. Young has been elected president of the Bureau of Freight and Transportation at New Orleans. The other officials are as follows: Messrs. Gus Lehman, Sr., first vice-president; Thos. Sloo, second vice-president; Adolph Katz, secretary; W. R. Stauffer, treasurer.

According to a dispatch from Greenville, Miss., the Southern Railway Co. has arranged for a shipment of 6000 tons of Alabama coal for use in the sugar district of Louisiana. It is stated that the company has received extensive orders from a number of the principal planters of the State. The indications are that a large tonnage will be carried from Greenville to the lower Mississippi this year.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

THEY WANT UNIFORMITY.

Friction in New Orleans About the Baling of Cotton.

In a lengthy article in its news columns the New Orleans Times-Democrat says:

"The unsatisfactory relations that have existed between the Maritime Association on one side and cotton buyers and factors in this city and some of the interior compresses and shippers on the other for some years past appear to be no nearer an adjustment than in past seasons, although a new compromise arrangement was recently entered into whereby all cotton rejected by the association on account of defective compressing was to be sent to one press selected by the association for recompressing, and an inspector appointed by the Cotton Exchange was to be stationed in said press to give certificates showing that the cotton had been actually compressed.

"This question of defective compressing, or rather lack of uniformity in size of bale and density, has been the source of more or less friction for a number of years, and the Cotton Exchange has on several occasions made rules intended to satisfy the different interests involved, but always without success.

"One of the objects for which the Maritime Association was formed is to inspect cotton intended for export and see that it comes within the requirements of the Cotton Exchange rules bearing on density. When cotton is tendered for shipment and it is found that the density is not what it should be under the rules, it is rejected and has to be recompressed. The charge for this extra labor is finally fixed on the interior compressor or country shipper, and more or less dissatisfaction follows, as the shipper often objects to this extra tax, and, it is said, in some instances shippers are sending their cotton to other ports than New Orleans in order to escape this charge."

And further on the article says: "It is pointed out that the transportation companies, if they could be induced to cooperate, could render invaluable aid in inducing farmers in the interior to put in a box of uniform size. The revolution that was effected in Texas was due largely to the railroads. Seeing the advantages in the way of saving in freight room that would follow the introduction of a box of uniform dimensions, the railroads made overtures to the owners of presses looking to the introduction of such a box. The advantages to be derived were pointed out and any assistance required by the press-owner in making the change, which costs but little, was extended. The result of this policy was that in a few years uniformity in cotton baling was secured in a large portion of Texas, and today the cotton that finds its way to Galveston reaches that city in a satisfactory condition.

"But the conditions prevailing in Texas are different from those existing in the territory tributary to New Orleans. In the first place, only cotton raised in Texas goes to Galveston, and in the second, much of the baling is done by public presses. It was, therefore, comparatively an easy matter for the railroads to reach

these presses in a single State and induce the owners to bring about the desired changes. The most of this Texas cotton finds its way to Galveston, and what does not go to that city comes to New Orleans. It is not profitable or practicable to transport it to the Atlantic seaboard for export.

"In the country tributary to New Orleans conditions are reversed. Cotton comes to this port from Arkansas, Louisiana, Mississippi, Alabama, Georgia and Tennessee, and much of it can be sent to Europe through other ports very nearly or quite as cheaply as through New Orleans. The system of public gins and presses does not prevail in this vast territory. On the contrary, every plantation and many farmers have their own gins and the boxes of the presses are not of the same dimensions. On one plantation the gin will be provided with a box of a given length, while on another the dimensions will be entirely different. No persistent or united effort has so far been made to induce the owners of presses in these States to take out their old boxes and put in others of uniform length. Until this is done, of course, the bales coming from interior compresses will vary in length, although they may be compressed to the proper density."

The many perplexities of the situation are not, it is believed, beyond cure. It might be well for the various interests to study the round baling process as a possible solution satisfactory to the greatest number. The following from the Norfolk Virginian is apropos:

"The Atlanta Constitution very wisely says that much depends upon the successful outcome of the experiment known as the cylindrical process of baling cotton. It declares that while the crude process which is now in vogue bears the stamp of age upon it, it is not on this account entitled to consideration, for its defects and shortcomings are only too apparent. So marked has been the loss occasioned by this unsatisfactory process of baling that our farmers who have sustained the full weight of this loss will be glad enough to adopt some other process if they can satisfy themselves that they will really be benefited by the change.

"Speaking from the standpoint of the New England manufacturer, the Boston Herald makes the following comment upon the importance to commerce of the cylindrical process:

"The great danger with cotton under the ordinary system of packing is that, although the bales are compressed, sufficient oxygen is still retained in and through them to give vitality to a fire. A spark from a cigar or from a smokestack falls upon a bale of cotton during the process of packing or shipping and works its way down toward the interior of the package. It may be weeks before it makes its evidence felt, but at the end of that time it sometimes finds its way, with greatly added vigor, to the surface of the bale, and then one hears that the crew of a cotton ship or steamer has suddenly discovered that the cargo is on fire, or the owners of a cotton warehouse have been startled to find that a fire has unaccountably broken out among the contents of their warehouse. This is a loss which the process of cylindrical baling would entirely obviate. Besides this, the cotton fiber would not be torn as it is under the present system of baling and covering, while what is more, in shipment the space required for carrying a given quantity of cotton could be materially reduced. Undoubtedly the use of this or some other form of package will in time become general, but we are to be deprived of this general benefit for some

time to come for the reason that there are millions of dollars invested in cotton gins and cotton compresses of the old type that would lose their value if this new system were generally adopted."

"So emphatic, says the Constitution, is the commercial demand for the round bale, and so earnest is the effort which is being made to perfect it, that the present unsatisfactory square bale seems destined in time to become obsolete."

HOW OPERATIVES LIVE.

Pen Picture of Their Homes in New Bedford.

If the much-vaunted high wages and short hours of New England operatives give them no better grade of living than that at New Bedford described by a writer in the New York Herald, they hardly possess any attractions for the Southern operatives. He says:

"These homes of the New England mill hands are of such a character as to justify much of the prevailing discontent. Each family has four or five rooms, and the rent of \$1.20 to \$1.50 a week is not excessive. But a great many laboring folk would insist that they be paid to live in some of the company houses, rather than that they be asked to pay for the privilege. An inspection of these homes of the New Bedford mill operatives revealed a deplorable condition of affairs. There were filth, want and misery on every hand. Many of the houses were erected a score of years ago, all are poorly constructed and I saw none that was not sadly out of repair. It is unusual for the mill operatives to be blessed with less than half a dozen children, and in one of the flats I visited were father, mother and thirteen children all huddled together in a small room that served the triple purpose of kitchen, dining-room and sitting-room."

Regarding wages he presents the following figures:

"While the managers of the New Bedford mills have been enjoying good incomes their employes have been making from \$2.50 to \$18 a week for six days' work. These figures represent the two extremes. Boys and girls more than fourteen years old usually make \$3 and \$3.50 a week in the mills, while women in the advanced departments earn from \$3.50 to \$6. The weavers make in some cases as much as \$9.50 a week, but such cases are rare. The mule spinners are the best paid of all. They are the operatives who draw from \$12 to \$18 a week. Average wages for a good spinner are \$15 a week. Less than 5 per cent. of the mill hands are spinners.

"Here is a table which will show at a glance the average wages of the New England mill hands, and also the average wages they would receive under the reduced schedule:

	Old Schedule.	New Schedule.
Mule spinners.....	\$15.00	\$13.50
Carders and speeder tenders.....	6.50	5.85
Slashers.....	9.00	8.10
Weavers.....	7.00	6.30
Frame spinners.....	5.00	4.50
Firemen.....	8.00	7.20

"With few exceptions, these operatives are skilled laborers. Many of them have been in the mills for years. This table will show how their wages compare with those of other laborers, many of them unskilled, in New Bedford:

Common laborers.....	\$10.50 to \$12.00
Street car employes.....	12.00 to 15.00
Employes in other industries.....	10.50 to 21.00

"No system of fining applies among any laborers in New Bedford outside of the cotton mills. The second of the foregoing tables, then, tells just what amounts of money men working in the

streets, on the trolley cars and in the other manufacturing concerns of the city actually take home at the end of each week's work."

FOR A TEXTILE SCHOOL.

Different Views Held by Legislators of Mississippi.

In the debate in the Mississippi senate preliminary to the adoption of the bill to establish a textile school at the State Agricultural and Mechanical College, Senator Mixon said that inasmuch as the only avenues to wealth in the State were professional, commercial and agricultural, it was greatly to the State's advantage to provide others, and he saw no better than by training young men along the lines indicated in the bill. He thought the time near at hand when cotton mills and other factories would dot the hills and build up the waste places, and that it was to the State's interest to prepare her boys to take charge of and manage these factories instead of filling subordinate positions, as they must unless educated and drilled in the work.

Senator Price in opposition said that he did not think the State able to make such investments, progressive though she may be, and at the same time maintain the superiority and excellence of her free-school system. He was no enemy to the Agricultural and Mechanical College, but could not indorse the proposition to spend money for this new venture.

Senator Clinton contended that so few avenues to wealth were open to young men of the South, it is the duty of the State to aid them so far as possible. A canvass of the young men now at the university would not show 1 per cent. preparing themselves to become mechanics—all wanted to embark in professional life. The South needed skilled labor, and the cheapest and quickest way to get it was to produce it at home. The textile school would cost \$25,000 to build and equip, but the expenses hereafter would be more than met by the receipts of the school from the tuition of \$100 and the sale of fabrics.

Senator Harrison thought that the opposition to the bill arose from a misunderstanding of its object, which is to prepare young men to take charge and operate the cotton mills that must soon be built. His town of Columbus has a cotton factory, built with home capital several years ago; it has added to its plant, has \$50,000 worth of cotton on hand and has paid 10 per cent. on the investment. The operative never arose above his particular work, but was paid according to his skill. Indorsing the claim that knowledge is power, he would train the young men of the State to fill the highest places. Mississippi is a cotton State, the finest in the world, and it is to the advantage of the producers to see that they get all the benefits possible out of their crops.

The Lynchburg Mill.

The annual meeting of the stockholders of the Lynchburg Cotton Mill Co., of Lynchburg, Va., was held during the week past. Reports from the managing officers showed that the company is prospering. The usual semi-annual dividend of 4 per cent. was declared several weeks ago, and the dividend for next July is already assured by reason of the aggregate of the orders on file. The mill has a surplus of nearly \$100,000. The president states that orders have been given Mr. C. R. Makepeace, of Providence, R. I., to prepare plans providing for a gradual increase of the mill's present capacity to double its output. The mill has now 21,500 spindles and 726 looms, and the proposed en-

largements are to be made as demanded by business.

THE PEOPLE'S FACTORY.

Opening of a Cotton Mill in Montgomery Celebrated.

The opening of the People's Cotton Factory at Montgomery, Ala., on January 21 was formally celebrated by the citizens of that place. The mill was built entirely by home capital under the auspices of the Commercial and Industrial Association. The Montgomery Advertiser, which with characteristic enterprise devoted four columns to an account of the opening, gives the following facts:

"The People's Cotton Factory Co. was informally organized on November 1, 1895, with an authorized capital of \$200,000 in shares of par value of \$50 each, with the following well-known business men as officers: Jacob Greil, president; W. F. Vandiver, vice-president; Joseph Norwood, general manager; T. L. Jones, secretary and treasurer; board of directors, Jacob Greil, W. F. Vandiver, H. M. Hobbie, M. P. LeGrand, David Weil, H. C. Tompkins, John C. O'Connell, Jos. Norwood and T. L. Jones. F. S. Mosher was appointed superintendent, and was afterwards elected general manager in place of Joseph Norwood, resigned, the former still retaining his position on the board of directors. The machinery is of modern pattern and up-to-date in every particular. It consists of 10,000 Fales & Jenkins spindles, 320 Stafford looms, made at the Knowles Loom Works, Atherton pickers, Pettee drawing and cards, Brooks & Doxey slubbers, and slashers from Cohoes, N. Y., 750-horse-power cross compound condensing Corliss steam engine and two 200-horse-power patent vertical tubular water-leg boilers. The mills are thoroughly equipped, including the latest automatic fire-extinguisher system."

Mill and Bleachery for Rockmart, Ga.

Arrangements have been about completed to ensure the immediate establishment of the large cotton mill at Rockmart, Ga., reported last week. The plant is to include a bleachery and dyeing plant, and the cost of the entire enterprise will probably be several hundred thousand dollars.

Site has been purchased, as previously stated, at Long's Station, near Rockmart, and arrangements for an early commencement of work on the necessary buildings will be made.

The capitalists interested in the enterprise are represented by Mr. F. C. Walcott, superintendent, and Mr. S. R. Campbell, treasurer, of the New York Mills, New York Mills, N. Y., where the latter company has a plant of 75,000 spindles and 1800 looms, and it is supposed that the Georgia plant is to be a branch of this establishment.

Regarding this enterprise Mr. F. C. Walcott telegraphs the Manufacturers' Record as follows: "Newspaper statements misleading; option on land only; no definite plans for building."

New Mill at Albemarle, N. C.

Work is about to commence on the new mill proposed by Mr. J. W. Cannon at Albemarle, N. C. This plant is to have a main building 400 feet by seventy-five feet in size, and be equipped at a cost of probably \$200,000, for the production of fine yarns, employing 600 operatives. A community of tenant houses will be built and supplied with water and electricity for lighting purposes. This plant is expected to be ready for operation by September 1. The Efrd Manufacturing Co.,

of Albemarle, of which Mr. Cannon is president, is preparing to arrange for the doubling of its equipment, as was stated recently the company intended doing. The Efrid mill now has 6000 spindles.

On Crop Reduction.

Messrs. Latham, Alexander & Co., of New York, have issued a bulletin on cotton acreage for 1898 devoted to a reduction of acreage. The following extracts are timely:

"The South cannot stand another cotton crop of same dimensions as this year's without bringing about disaster and bankruptcy to planters and handlers of cotton, and relative harm to the general mercantile interest of that section."

"The price of cotton is more readily influenced by the inexorable law of supply and demand than any other article of commerce, for no commodity is so sensitive to fluctuations, and when a superabundance is hanging over the market, cotton trade in all its branches is adversely affected."

"The mere fact that a large crop has been planted affects the price adversely at once, and continues to affect it until the crop has been marketed, and if the planters of the South would determine to largely reduce the acreage, a favorable influence upon prices and the cotton trade of the world would at once become apparent."

"By the systematic and co-operative action between the merchants and planters the cotton crop must be kept within reasonable trade demands or else destroy the most valuable source of profit to the mercantile and agricultural interest of the South. For the good of all concerned, it would be infinitely better any year to make 1,000,000 bales less cotton than 500,000 bales more than necessary."

Too Much Bagging.

Secretary Peter Browne, of the Liverpool Cotton Exchange, has written a letter complaining of overtaring of bales of cotton shipped from American ports. He says:

"There is ultimately no real advantage to the American shipper in this overtaring, inasmuch as buyers must naturally take outturn weights into consideration in the price, and already individual members are discriminating to the disadvantage of cotton from certain districts, and from shippers whose cotton is thus overweighted with bagging."

The Cotton Movement.

In his report for January 21 Secretary Henry G. Hester, of the New Orleans Cotton Exchange, shows: Amount of cotton brought into sight for 143 days, 8,212,119 bales, an increase of 1,323,237; exports, 4,383,200 bales, an increase of 412,908; Northern spinners' takings, 1,465,300 bales, an increase of 330,690; Southern spinners' takings, 543,403, an increase of 23,537.

Georgia's Textile School.

The trustees of the Georgia School of Technology have decided to have plans of the necessary buildings drawn and a list of the necessary machinery prepared before beginning the movement for raising \$10,000 necessary to secure the appropriation of \$10,000 made by the legislature for the textile department in the school.

Textile Notes.

The Walhalla Cotton Mills, Walhalla, S. C., has increased its capital stock from \$100,000 to \$150,000.

Mr. George W. Owens, formerly president of the Savannah Cotton Mills, Sa-

vannah, Ga., is endeavoring to form a company to buy and operate the plant.

Mr. George P. Taylor, formerly manager of the Lancaster Mills, Clinton, Mass., contemplates the establishment of a cotton mill in either North or South Carolina.

Mr. S. A. Magill, operating as the Dixie Knitting Co., Atlanta, Ga., will rebuild at once the burned knitting mill noted previously. The new plant will cost probably about \$18,000.

Mr. Henry D. Kent, of Philadelphia, Pa., has purchased, in conjunction with James McNaughton, of New York, the Liberty Woolen Mills at Bedford City, Va., and it is said the new owners will put the idle plant in operation at once.

The Cuero Hosiery Co., of Cuero, Texas, will want to contract for yarn for its mill. Numbers to be required will be 8s, 10s, 12s, 14s, 16s, single, and two and three-ply. This company will establish a mill, as noted last week, and will have a daily capacity of 600 dozen pairs of hose. Power will be electricity, transmitted from the water-power of the Buchel at Cuero.

At a meeting held at Birmingham, Ala., on January 21 of stockholders of the Avondale Cotton Mills, an issue of \$100,000 of 6 per cent. five-year gold bonds was voted. These bonds will be sold to J. M. Lewis, of Talladega, Ala., who takes them at par. The treasurer was instructed to sell at not less than par \$100,000 more of stock, which was authorized some time ago. Ten thousand dollars of this stock was taken on the spot. Total proceeds from stock and bonds will be \$500,000, which will represent the investment in the company's mill. The mill will be in operation in May, with 36,000 spindles and 1150 looms.

The receivers of the Eagle & Phoenix Manufacturing Co. at Columbus, Ga., are making improvements to the plant which include the installation of a 200-horse-power boiler, made by the Sterling Boiler Co., of Barberton, Ohio. This addition is made necessary by a want of increased steam for the dyeing department of the Eagle & Phoenix mills, which are now treating more goods daily than ever before in the company's history. Arrangements now being made will provide for the change of 35,000 old-style spindles to a new and improved form. In the finishing-room a new folding machine was placed last week; also ten improved looms for towel production.

Alabama's Mineral Products.

The production of minerals and the manufactured product therefrom in Alabama during the year 1897, as reported to State Geologist Eugene A. Smith by the producers themselves, is as follows: Coal, 5,114,129 short tons; coke, 4,252,624 short tons; pig iron, 839,793 long tons; iron ore, 2,112,400 long tons; limestone, 289,973 long tons; bauxite, 10,539 long tons; building stone, 133,160 cubic feet; partial production brick, 20,210,000; partial production pottery, 10,000 gallons.

The Manufacturers' Record, of Baltimore, has done more to promote the industrial development of the South than any other publication in the country. For several years it has paid especial attention to the advancement of the material interests of our section of the Union, and the success achieved by it along this line has been most marked. The Manufacturers' Record eminently deserves, and by all means should receive, a liberal support from every part of our Southland.—Lancaster (S. C.) Review.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., January 25.

The market for cotton oil has been dull during the week, with prices ruling on practically the same plane as those quoted in our last. In the absence of dock lots prices are, however, strong, crude especially. The mills almost without exception refuse to accept the prevailing offers, as quoted herewith. A decided lull in the export trade obtains, the market in this respect being "like a man who has just enjoyed a good dinner," to quote a prominent oil man. Advices from Marseilles, however, go to show that arrivals there have been in excess of current needs, although as the season advances the demand will undoubtedly be even greater than during the recent active movement. Resales of December shipment at $\frac{3}{4}$ c. under the New York price are reported from the French city, which circumstance explains the dullness in refined, notwithstanding the reduced ocean freights. A recent letter from Tuscany, Italy, the source of the finest olive oil produced, informs us of the unprecedentedly small crop of olives, and as the pressing is finished the oil yield is correspondingly limited. The price of real Lucca oil is much advanced in consequence. Reports from Sicily, whence the French oil merchants draw their supplies, are similar, and the outlook would indicate a very largely increased consumption of cotton oil in France and Southern Europe generally along in the spring. Lard closes for May delivery at 4.82½ cents, and tallow at this market is dull at 3½ cents. Greases hold the late advance and are taken up freely in preference to tallow at the difference. Prime summer yellow is selling here, job lots, at 24 cents, while butter oils are selling slowly at 25 to 26 cents. Exports, which include the heavy sales made two weeks ago, aggregate 21,200 barrels, and arrivals for the week are 9500 barrels. The following are closing prices: Crude, 19 to 19½ cents; crude, loose, f. o. b. mills, 16 to 16½ cents; summer yellow, prime, 22½ to 23 cents; summer yellow, off grade, nominal; yellow, butter grades, 25 to 26 cents; white, 25 cents; winter yellow, 28 to 28½ cents; salad oil, 29 to 30 cents, and soap stock, $\frac{1}{2}$ c. to $\frac{3}{4}$ c. per pound. Liverpool (England) refined oil is strong at 15s., which is an advance from last week's quotation. Crude at the Atlantic coast mills has been quite active at 16 cents, thirty-five tanks having been sold for the week. Mississippi Valley oil closes at 16½ cents, and for Texas oil 16 cents is asked.

Cake and Meal.—Cake is reported scarce, while meal, which is more plentiful, is difficult of sale at the prevailing figures. Recent reports from the United Kingdom indicate that owing to an advancing linseed market, cake has correspondingly advanced, cotton cake usually following suit. At this market meal is nominally quoted at former prices—\$19.50 to \$20.50 per ton—with light sales.

Cottonseed-Oil Notes.

The Chattanooga Cottonseed Oil Mills at Alton Park have commenced the erection of a new warehouse, larger in every respect than the old one.

The market for cottonseed products in Texas is steady, with a good foreign demand for cake and meal. Values are unchanged and the demand for oil is a

shade better. Prime crude oil, loose, is quoted at 14½ to 15 cents, and prime summer yellow oil offered at 17 cents. Prime cottonseed cake \$13.25 to \$14.50, and cottonseed meal \$13.25 to \$14 per short ton. Linters, per pound, 1¾ cents to 2¼ cents. The above figures are f. o. b. mill Texas interior points, according to location.

Among the foreign exports of cottonseed products from the port of Galveston, Texas, last week were the following: Steamship T. R. Thompson, for Hamburg with 67,500 sacks of cottonseed meal and 1606 sacks of cottonseed oilcake; steamship Ellen Rickmers, for Bremen, 250 sacks of cottonseed oilcake; steamship Eastrey for Aarhus, 34,120 sacks of cottonseed meal; steamship Westwater, for Rotterdam, 5735 sacks of cottonseed meal and 790 sacks of cottonseed oilcake, and steamship Fredjof Nansen, for the same port with 40,340 sacks of cottonseed meal.

At New Orleans the movement in cottonseed products is fairly active, with a moderate local and fair foreign demand. Values are not materially changed. Receivers' prices are quoted as follows: Cottonseed, \$7 per ton of 2000 pounds delivered to the mills; cottonseed meal jobbing at the depot, \$17 to \$17.50 per short ton, and \$18.25 per long ton for export f. o. b.; cottonseed oil, 17 to 18 cents per gallon for strictly prime crude, in bulk 15 to 16 cents, and 21 to 22 cents for refined oil at wholesale or for shipment; oilcake, \$18.50 to \$19 per long ton f. o. b.; linters—A, 2¼ cents per pound; B, 2½ cents; C, 2¼ cents; hulls delivered at 12 to 17½ cents per 100 pounds, according to the location of the mills.

FACTORIES FOR DIXIE.

What Is Needed to Secure Eastern Capital for Southern Cotton Mills.

[Times-Herald, Dallas, Texas.]

Mr. W. H. Patterson, of the firm of Harris & Patterson, State agents of the Hartford Life Insurance Co., has just returned from a trip to Hartford, Conn.

What particularly impressed Mr. Patterson was the remarks of Mr. Parker, owner of the Ravine Cotton Mills, at Vernon, Conn., in regard to the future of the South. Mr. Parker, who has been in the cotton-manufacturing business all his life, said to Mr. Patterson that he told his friends nine years ago the cotton factories would have to go South in a very few years. He said that less expensive buildings are required in the South, and also fewer clothes and less fuel; the hours are longer and labor cheaper than at the North. The freight on the raw cotton can be saved, as well as the cost of the bagging and ties and of pressing, as the cotton can be ginned right in the mills and used without pressing or baling. He added that a reduction of wages in the Northern mills would not enable them to compete with the Southern mills.

Mr. Parker said now is the time for the South to take advantage of its natural resources and to encourage the millmen to move their plants to Dixie, and the only encouragement necessary is a friendly spirit on the part of the legislatures of the Southern States. It is in the power of the South, he said, to attract thousands of factories and millions of capital in the immediate future, and to start on a career of great prosperity.

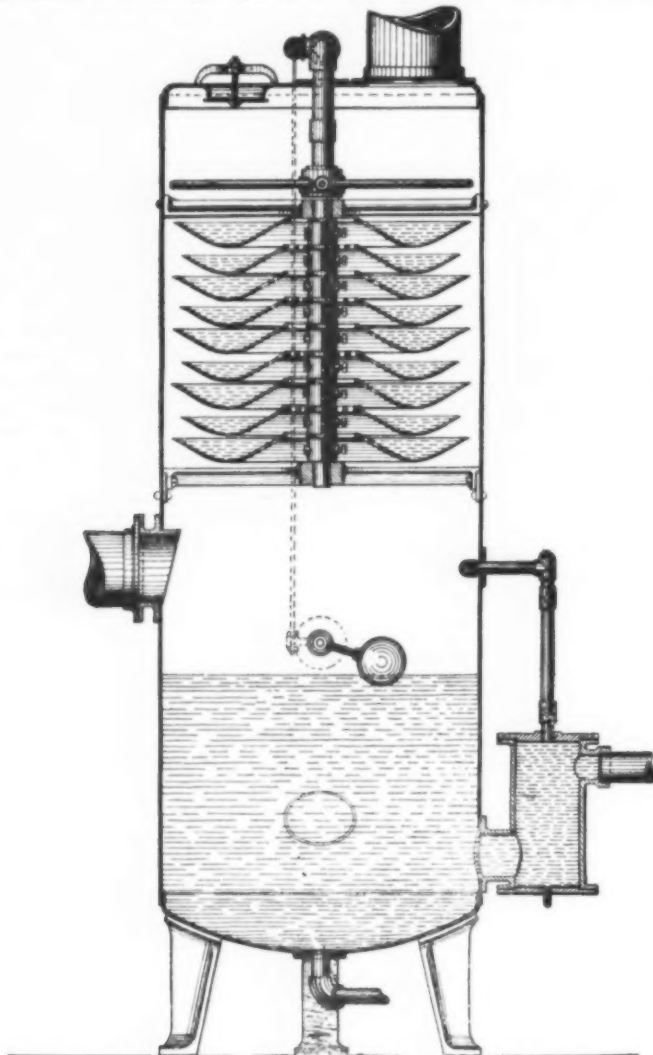
The new board of directors of the Business Men's Club of San Antonio, Texas, has decided to compile a pamphlet descriptive of San Antonio for distribution by merchants and by the railroads.

MECHANICAL.**Feed-Water Heater and Purifier.**

Users of boilers will find of interest this reference to the Pittsburg feed-water heater and purifier, an illustration of which is given herewith.

This heater is of the open cylindrical

top. The water, having passed through the pans with increased temperature, and leaving behind the greater part of its impurities, falls through the steam into the water reservoir and sediment chamber below. An efficient blow-off is placed at the normal water level to skim off the oil and floating impurities; one is also placed in lower part of sediment chamber.



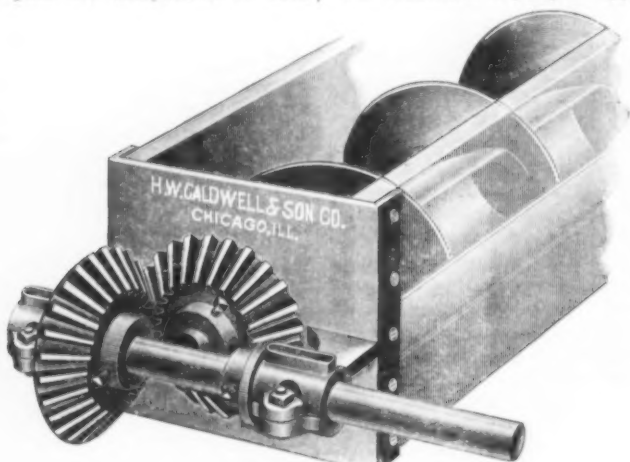
THE PITTSBURG FEED-WATER HEATER AND PURIFIER.

type, the cold water entering the upper part of the heater through a six-arm spraying device consisting of pipes perforated throughout and closed on the ends. Immediately below are arranged a series of dished pans on a central shaft, securely held in position by brackets.

The pans are independent of each

To prevent the oil and impurities in suspension from entering the boiler, a cylinder is attached to the side of the heater, the upper part of which is connected with steam space, the lower end connected to the water space at an intermediate point by a large connection.

The connection to pump on upper side



COUNTERSHAFT BOX END.

other, and can be revolved easily by the hand, or lifted off through a door arranged on shell of heater. The water flows from upper to lower pans, which are perforated on the inner edge, meeting the exhaust steam, which enters below the pans, passing upwards to outlet on

of separator cylinder is smaller than to heater so as to keep the body of water from being stirred up by the action of the pump. Should the water reservoir fall below the normal level to a point level with the suction in cylinder, the pump will automatically stop, the steam

being admitted through top of cylinder. Possibility of back pressure is avoided by the large area of heaters, giving the water the full benefit of the heat in the exhaust steam.

For further particulars regarding this device address Messrs. James Bonar & Co., 1215 Carnegie Building, Pittsburg, Pennsylvania.

Countershaft Box End.

To many convenient appliances for use in connection with the Caldwell conveyor, the device shown by the accompanying cut has been added. Lines of conveyor frequently run at right angles to the shaft from which the power is taken. In order to drive the conveyor in this position, it is often necessary to use a countershaft with miter gears. Heretofore independent pillow blocks have been used for the countershaft bearings, and it has generally been a matter of some considerable expense to provide the necessary supports for these bearings. The device illustrated is designed to provide a cast-iron box end for the conveyor box, and, as a part of the same casting, furnish the bearings necessary for the miter gear countershaft. The convenience and economy of this arrangement will be readily seen.

The bearings are so arranged that the projecting shaft, to which the sprocket wheel or driving pulley is to be attached, can extend on either side of the box, and the position of the miter gear on the short countershaft can be shifted from one side to the other, so that the motion of the conveyor can be changed as desired.

Prices, including the cast-iron box end, necessary drive end projection for the conveyor, gears and short countershaft projecting far enough to take sprocket wheel or pulley, on application. Address the H. W. Caldwell & Son Co., maker, 127 W. Washington street, Chicago, Ill.

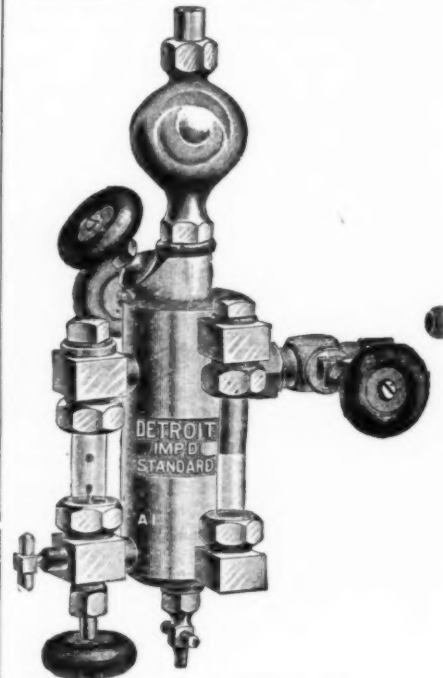
"Detroit" Engine Lubricator.

The steam engine being the source of all power in manufacturing establishments, every instinct of business pru-

generated, the engine lubricator has been devised.

Of the many lubricators on the market, we illustrate the one manufactured by the Detroit Lubricator Co., of Detroit, Mich.

This lubricator is made of the highest class materials, by highest class work-



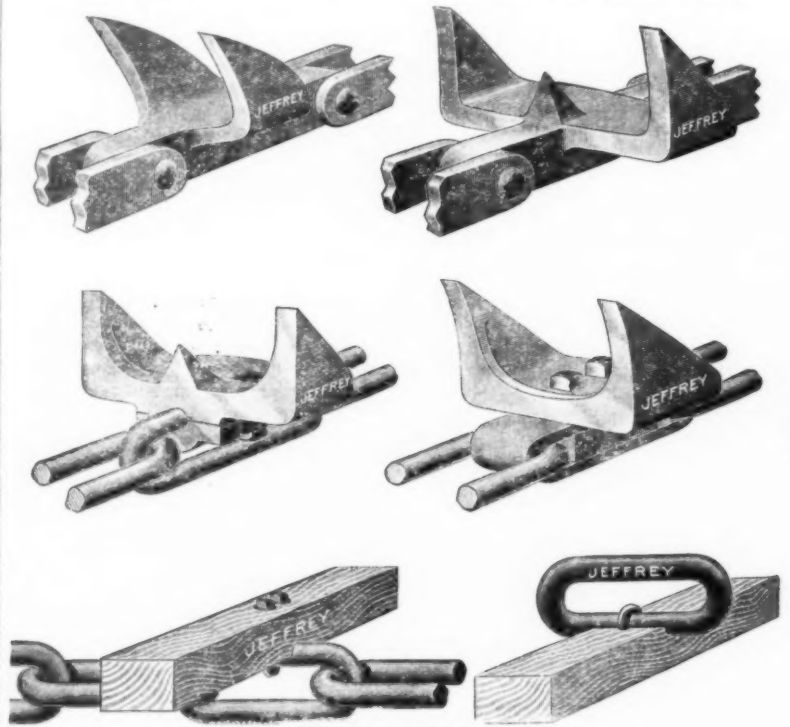
"DETROIT" ENGINE LUBRICATOR.

manship, and offers to engine users a lubricator that cannot, the maker claims, be excelled (if equalled) by any other now offered to them.

Full specifications, illustrations, prices, etc., can be obtained on application.

Saw-Mill Chains.

Various spurs and attachments which have found much favor in the saw and lumber industries for the handling of logs, lumber, refuse, etc., are made by the Jeffrey Manufacturing Co., of Columbus, O. Among these devices is spur or



SAW-MILL CHAINS.

dence requires that it be treated with the greatest of care.

The chief element which is produced to interfere with the efficiency of the steam engine is friction, and in order to properly and thoroughly oil those surfaces, chambers and journals where friction is

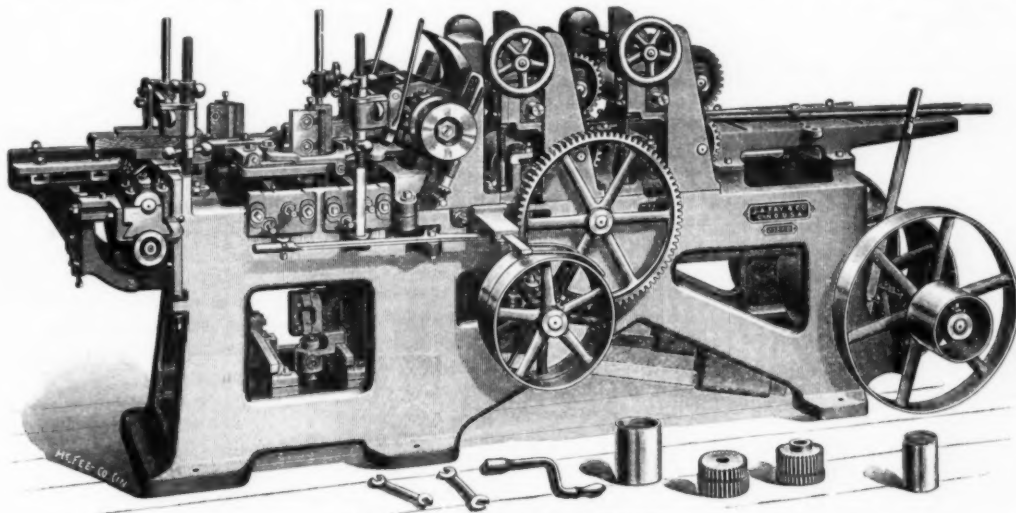
dog attachments, made in various sizes to suit requirements for light as well as the very heaviest work. The style of attachment and chain in the two upper illustrations are possibly the best for log haul-up purposes. The spur attachment and the coil chain is considered very effi-

cient and possesses many points in its favor, the principal one being that its first cost is low.

The lower illustration shows coil chain with wooden flights attached. This is a form that has proven very satisfactory in the conveying of refuse, offal, etc., and owing to its cheapness is preferred in many instances to the higher grade chains. In use this chain travels in a groove in the usual V-shaped trough, the

is an inside molder to work from three-eighths inch to five inches in thickness and up to eight inches and ten inches wide, and is designated by the number 4.

This molder has met with a most favorable reception by the woodworking industry, and is fully up to the high standard heretofore sustained by this well-known firm of woodworking machine builders. This machine is shown in the illustration. For complete description, specifi-



NO. 4 FOUR-SIDED INSIDE MOLDER.

wooden flights dragging upon the bottom, with the chain below in the groove. The flights are usually made of hardwood, three inches by two inches, and when fastened to the chain links by means of the U-shaped bolt are held firmly and give good results.

The sprocket-wheel used in connection with this style of chain is made either with solid or adjustable teeth, as may be

cations, prices, etc., address the firm as noted.

Surface Planing Machine.

The surface planing machine shown is newly designed and fully capable of meeting the wants of the most exacting woodworker desiring a machine of this class.

The machine will surface (one side)

activity, and the record of charters for the week, appearing below, would indicate more activity at points of production. In South Carolina a charter was issued last week to the Central Phosphate Co., organized by Charleston capitalists, with the principal place of business at Beaufort. Prices of South Carolina rock are generally steady, with a fair domestic demand. Florida phos-

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., January 27.

The phosphate market is quiet, in sympathy with the movement in other fertilizer ingredients, and the volume of business in a local way is moderate. At points beyond this State there is some

New York during the past week: Two schooners, 926 and 1007 tons, from Port Tampa to Baltimore with phosphate rock at \$1.80; a schooner from Baltimore to Galveston with coal at \$1.55, and back from Charlotte Harbor with phosphate at \$1.85; steamer Talisman from Fernandina to the east coast of United Kingdom with phosphate rock at 17/6; schooner Thomas A. Ward, 765 tons, from Baltimore to Port Royal with fertilizer at \$1.25 loaded and trimmed; a British steamer, 1265 tons, from Pensacola to Cete with phosphate rock at 21/; schooner C. H. Wolston, 288 tons, from Philadelphia to Wilmington with phosphate rock at \$1 and discharged; schooner W. W. Ward, 1145 tons, Port Tampa to Cartaret with phosphate at \$1.90; schooner Isabella Gill, Port Tampa to Baltimore with phosphate rock at \$1.90, and J. R. Halliday, Norfolk to Cartaret with phosphate at 65 cents.

Fertilizer Ingredients.

No new features have been developed during the past week in the market for ammoniates, and the tone is quiet. There is very little demand from any particular source, and values for most material are barely steady. Sulphate of ammonia is firm, with a limited inquiry. Nitrate of soda is quiet and steady.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 52 1/2 @	—
Nitrate of soda	1 85 @	1 90
Blood	1 72 1/2 @	—
Hoof meal	1 65 @	—
Azotine (beef)	1 70 @	—
Azotine (pork)	1 70 @	—
Tankage (concentrated)	1 55 @	—
Tankage (9 and 20)	1 60 @	and 10
Tankage (7 and 30)	15 00 @	15 50
Fish (dry)	19 00 @	—
Fish (acid)	12 00 @	—

Phosphate and Fertilizer Notes.

The British steamship Elwick cleared last week from Savannah for Genoa with 1014 tons of phosphate rock and other cargo.

The Norwegian steamship Talisman cleared from Fernandina, Fla., on Monday last with a cargo of 2400 tons of phosphate rock for the Dunnellon Phosphate Co.

The British steamship Regulus, which cleared from Brunswick, Ga., last week with a cargo valued at \$229,035, carried 1045 tons of Florida phosphate rock among her cargo.

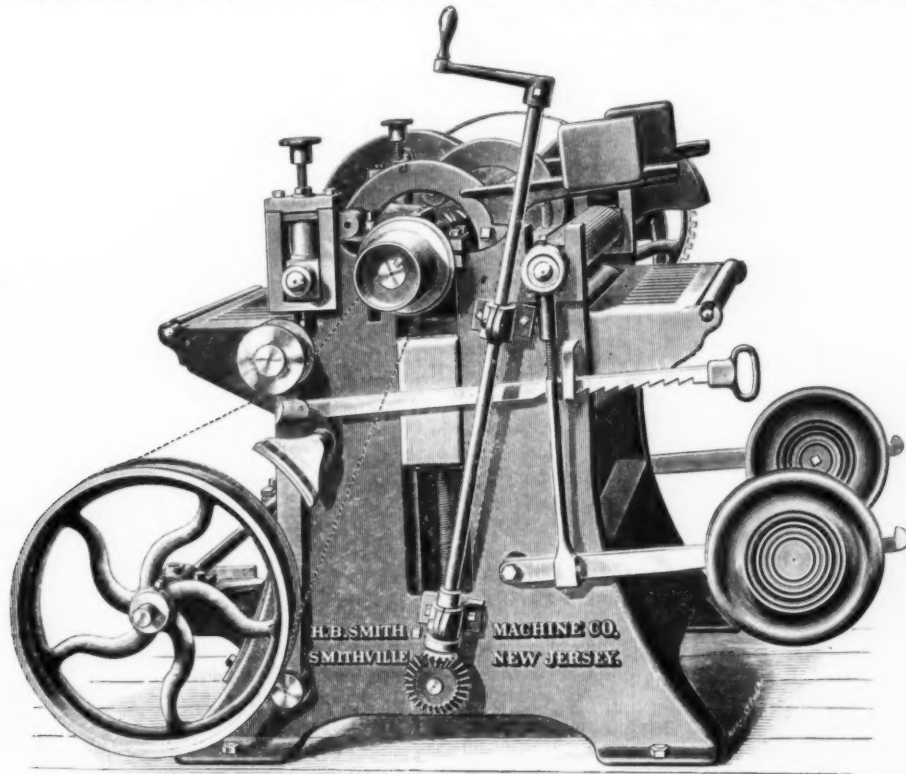
The British steamship City of Wakefield, which cleared last week from Port Tampa, Fla., with 3900 tons of phosphate rock, sailed from Norfolk for Helsingborg, Sweden, on the 19th inst., after taking on coal.

A charter was issued last week to the Central Phosphate Co. The incorporators are Edward W. Hughes, John B. West and John E. Ficken, all of Charleston, S. C. The capital stock of the company is \$5000, divided into 250 shares. The principal place of business will be at Beaufort, S. C.

The railroad commission at its meeting in Raleigh, N. C., last week made a reduction in rates on fertilizers on all railroads in the State of 16 2/3 per cent. from those of last year. It applies to carload lots which the railroads do not have to load or unload, and goes into effect from date of passage.

The machinery, property and effects, together with 800 acres of land, owned by the North Carolina Phosphate Co., was sold at auction at Wilmington, N. C., on Monday last. At the sale there were several bidders, the successful one being Mr. W. H. Chadburn, of Wilmington, who bid \$8800, at which figure the sale was closed.

The following shipments of phosphate rock from the port of Charleston, S. C.,



SURFACE PLANING MACHINE.

preferred. A complete catalogue descriptive of these special chains can be had on application.

Four-Sided Inside Molder.

A machine of great importance to wholesale manufacturers of moldings, casings, ceiling, partition stuff, etc., has just been placed on the market by Messrs. J. A. Fay & Co., of Cincinnati, Ohio. It

twenty-four inches wide from the thinnest material up to eight inches thick.

The parts are all made of the best obtainable material by skilled workmen in a modern woodworking machine plant, and will be found as a whole to form a machine of the best class.

For further particulars, specifications, prices, etc., address the builder, the H. B. Smith Machine Co., of Smithville, N. J.

phate rock is moving more freely, and values, especially for pebble rock, are firmer. There is also a free movement in Tennessee rock, both for domestic and foreign shipment. Values are steady at about 7 to 7 1/2 cents a unit delivered at Baltimore, and one cent less to Richmond and Norfolk, sales having been made during the week within that range. The following charters were reported in

were reported last week: Schooner Anna L. Mulford for Baltimore with 806 tons, and schooner Isaac H. Tillyer with 804 tons. The total shipments of phosphate rock from the port of Charleston, S. C., to domestic ports from September 1, 1897, to January 21 amounted to 33,160 tons, against 37,547 tons for the corresponding period last year.

Iron Markets.

Cincinnati, O., January 22.

During the past week the sales of pig iron have been above the amount usual for this time in the year. The aggregate tonnage is large and the principal orders have been secured at slight concessions. A very large business could be booked if the furnaces were disposed to cut about twenty-five cents per ton. On the other hand, if a slight stimulant was applied with the probability of an advance of twenty-five cents per ton taking place, those who are now holding out would be glad to come in on present quotations.

The disruption of the Superior Charcoal Iron Co. has led to a scramble for business, and it is impossible to give exact quotations on that class of material. The circumstances of each trade and the location of the furnaces competing influence prices to a large degree. It is not believed that the owners of the charcoal furnaces will feel like selling their product at less than cost for a long period. After the first skirmish is over it is thought that prices will be restored to the normal condition. Several orders ranging from 500 to 2000 tons have been placed by malleable works and other deals are pending.

We quote for cash f. o. b. Cincinnati:

Southern coke, No. 1 foundry	\$9 75@10 00
Southern coke, No. 2 foundry	9 50@9 75
Southern coke, No. 3 foundry	9 25@9 45
Southern coke, gray forge	8 75@9 00
Southern coke, mottled	8 75@9 00
Southern coke, No. 1 soft	9 75@10 00
Southern coke, No. 2 soft	9 50@9 75
Belfont coke, No. 1, Lake Sup.	11 00@11 50
Belfont coke, No. 2, Lake Sup.	10 50@10 75
Hanging Rock charcoal, No. 1	14 50@15 50
Tennessee charcoal, No. 1	12 50@13 00
Jackson Co. silvery, No. 1	12 50@13 00
Standard Georgia car-wheel	14 25@15 00

We quote for cash f. o. b. New York:

No. 1 X standard Alabama	\$11 00@11 25
No. 2 X standard Alabama	10 50@10 75
No. 1 X lake ore coke iron	12 50@12 75
No. 2 X lake ore coke iron	12 00@12 25
Niagara coke malleable	12 00@12 25
Standard Georgia charcoal	15 50

Philadelphia, Pa., January 22.

Some large transactions have been put through this week in coal, Virginia, West Virginia and Connellsville coke. Bessemer steel and charcoal iron have also moved freely. The epidemic of typhoid fever and grippé, caused by bad drinking water and unseasonable weather, will eventually interfere with local business.

We quote for cash f. o. b. Philadelphia:

No. 1 X standard Alabama	\$11 50
No. 2 X standard Alabama	11 00
No. 1 X lake ore coke iron	12 50
No. 2 X lake ore coke iron	12 50
Niagara coke malleable	12 50
Standard Georgia C. C.	15 75

ROGERS, BROWN & CO.

The conference of Texas and Louisiana lumbermen at Orange, Texas, on the 18th inst. was attended by only a few members. No change was made in the price-list, and the only business transacted was the adoption of a universal stock sheet. W. L. Lewis presided, with R. E. Kelly, secretary.

A letter from a well-informed source to Consul Fowler, of Ningpo, China, intimates that the German occupation of the Kiao-Chow Bay region may be used as an entering wedge for commerce, and calls attention to opportunities there for American manufacturers of bicycles and cheap clocks.

There is talk in South Carolina of reviving the State geological survey in connection with the scientific faculty of Clemson College.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., January 27.

The movement in the local lumber market during the past week has been fairly active, with a slightly better demand for certain grades of material. Receipts of yellow pine are more liberal, and stocks at the moment are fully ample for all requirements. There has been some demand from yardmen and planing mills, while boxmakers and others are not buying freely. There is an active movement in kiln-dried North Carolina pine, and both for domestic and foreign purposes the inquiry is good. Cypress is quiet, with values steady. In white pine there is some demand, and the market is firm, with stocks generally well assorted. The local and out-of-town demand for hardwoods is improving, and there is a good inquiry from furniture factories and other woodworking concerns. The demand from Europe is improving, and a number of good orders have been received during the present month. Oak, walnut, poplar, ash and other woods are generally firm as to values, with stocks not excessive.

Mobile.

[From our own Correspondent.]
Mobile, Ala., January 24.

The general market for all wood products is fairly active, and the movement is more decided than at any time since the new year opened. While there are some in the trade complaining of a dull market, shipments continue good, and mills, both here and at adjacent milling points, are all busy, having a fair share of orders. At this port there are seventeen mills cutting pitch pine, mostly for the foreign trade, and nearly all are working on full time, and are well supplied with orders. The timber market is firm, with no material change in prices. For sawn timber 10 to 10½ cents per cubic foot is the figure, while hewn timber, when placed upon the market, will bring 12 to 12½ cents per cubic foot, basis of 100 cubic feet, average B1 good. Hewn oak is dull at 14 to 16 cents for first-class timber, while hewn poplar is in limited demand at 10 to 11 cents per cubic foot for large average girth. Saw logs are in fair demand at \$4 to \$7 per thousand delivered at mill. Among the clearances during the past week the following vessels were reported: Ship Gripen for London with 47,200 cubic feet of sawn timber and 187,483 superficial feet of lumber; schooner Stubbs for Cardenas, Cuba, with 287,389 feet of lumber; schooner Boniform for Belize, British Honduras, with 116,000 feet, and bark Arizona for Buenos Ayres, A. R., with 818,034 feet. The total shipments since September 1, 1897, amount to 20,730,729 feet of lumber, against 29,133,155 feet in 1896-97. Shipments of hewn timber since September 1, 1897, amount to 338,603 cubic feet, against 130,419 cubic feet last year, and sawn timber 207,076 cubic feet, against 1,705,188 cubic feet last year. Shipments of other woods since September 1 last in cubic feet are as follows: Oak 24,204, gum 6598 and poplar 3905. Freighters are generally steady, with a moderate offering of desirable tonnage. Among the charters reported last week in New York were the following: British steamship Accomac, 1573 tons, from Pensacola to Rotterdam with sawn timber at 110/, March; bark Constance,

1077 tons, from Mobile to Rio Janeiro with lumber at \$15, \$2 form, and bark Wilhelm Anton, 992 tons, from Pensacola to Rio Janeiro with lumber at \$13 net.

Charleston.

[From our own Correspondent.]
Charleston, S. C., January 24.

There has been a better movement all along the line of the lumber industry of this section during the past week. The various mills, both here and at adjacent points, are now running on full time, and at Georgetown there is considerable activity in milling circles, shipments being of greater volume and orders coming in more freely. The market for desirable lumber is steady, with prices unchanged, and at the close of business on Saturday the list was as follows: Merchantable lumber, \$14 to \$16 for city-sawn, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.50. The shingle trade is active, with a good demand for all desirable stock and prices firm, ranging from \$4 to \$7 per thousand. During the past week the shipments reported were moderate in volume, the following clearances being reported: Schooner Viola Reppard for Boston with 350,000 feet of lumber; steamship Comanche for New York with 21,000 feet of lumber, and steamship Seminole with 42,241 feet, among their cargoes. The schooner Jas. Boyce, Jr., cleared with 300,000 feet of lumber for New York, and schooner Robert C. McQuillan with 7141 oak cross-ties for Philadelphia. The total shipments of wood products from this port from September 1, 1897, to January 21 amounted to 17,100,546 feet coastwise, against 25,422,850 for the corresponding period last year. The foreign shipments for the present season of 1897-98 amounted to 277,000 feet, against 560,000 feet last year. The steamship Suez cleared for Bremen last week with 2000 feet of lumber among her cargo. Among the charters reported last week in New York were the schooner Bayard Hopkins, 212 tons, from Georgetown, S. C., to New York with lumber at \$4.25, coal out from Philadelphia \$1, and the schooner H. & J. Blendenman, 473 tons, from Charleston to New York with cross-ties at 14 cents.

Lumber Notes.

Messrs. J. J. Flowers, F. A. Flowers and J. D. Flowers, of Bolling, Ala., have purchased 60,000 acres of finely timbered land southeast of Bolling, near the Florida-Alabama line, and will soon erect upon it an immense lumber plant similar to the one at Bolling.

The extensive lumber plant of the Aberdeen Lumber Co. at Aberdeen, N. C., was destroyed by fire on the 20th inst. A large quantity of dressed lumber was totally destroyed. The loss on machinery, building and stock is estimated at \$35,000 to \$40,000, with no insurance.

It is stated that the Casey Lumber Co., of St. Louis, is negotiating with the Royal Lumber Co., of Nacogdoches, Texas, for the purchase of its mills and other property. Should the deal be closed the purchasers intend to make it one of the most extensive lumber plants in the South.

The J. A. Bel Lumber Co., of Lake Charles, La., at its meeting last week elected the following officers for the ensuing year: J. A. Bel, of Lake Charles, president; M. T. Jones, of Hinton, vice-president; W. W. Flanders, secretary and treasurer, and W. G. Mosling, assistant secretary. This is said to be one of the strongest companies in Lake Charles,

and its business is reported to be in a fine condition.

The movement in wood products from Savannah last week was fairly active, shipments amounting to 2,310,647 feet of lumber, distributed as follows: New York 560,869 feet, Philadelphia 1,123,192 feet, Baltimore 302,845 feet and Boston 323,741 feet. The Norwegian bark Memory cleared for Cadiz with 122,380 white oak staves.

The saw-mill plant of the Southern Pine Co., at Nichols, Ga., the temporary terminus of the Waycross Air Line, is now in full operation, and during the week ending the 17th inst. shipped over 105 cars of lumber. The mill has a capacity of 70,000 feet a day, and is under the superintendence of Mr. T. G. Hilliard, of Savannah, Ga.

The committee of the Omaha exposition commissioned to confer with the saw-mill men of the State of Georgia is actively at work. Col. J. L. De Lacy, of Eastman, Ga., the chairman of the sub-committee, has sent out circular-letters to all parts of the pine belt asking the co-operation of the millmen in the erection of the Georgia pine palace at Omaha.

A meeting of saw-mill men was held at Cordele, Ga., last week to consider various matters relating to the lumber industry of the State. A committee, consisting of H. H. Tift, A. B. Steele and J. W. Oglesby, was appointed to meet railroad representatives at Macon as soon as practicable to further consider the loading rules, and it is confidently expected that a satisfactory agreement will be reached. Resolutions were passed to maintain the price-list adopted at the last meeting. The meeting adjourned, subject to the call of the chairman.

A conference of leading railroad men and representatives of the lumber interests of Memphis was held in that city last week for the purpose of discussing the question of better facilities for the transfer of lumber and logs from river to railroad. The conference was very satisfactory to both Commissioner Darant, of the freights bureau, and to Mr. Curtis, who represents most of the saw mills in Memphis. They hope in the near future to announce that a hoisting plant will be put up which will greatly facilitate lumber operations in that city.

It is stated that the South Carolina Land & Lumber Co. has changed hands, the purchaser being D. L. Risley, the representative of a syndicate of Northern capitalists. The South Carolina Land & Lumber Co. owned and controlled the Berkeley Railroad, which extends from Monck's Corner to New England City or Chicora, S. C., and some 18,000 acres of land. The lumber company's transfer includes all the land, saw mills and shops of the road. The new company will extend the road to Eutawville, and will manufacture lumber, erect houses and add manufacturing plants at New England City.

On the 21st inst. there was in the port of Brunswick, Ga., the largest fleet since October last, consisting of five steamships, sixteen barks, one brig and seventeen schooners. A number of these are loading wood products, among which are the following: Schooners Lucy H. Russell, for Norfolk; John L. Trent, for Portland, Me., and William H. Sumner, for New York; the bark Borinquin cleared for Valencia, Spain, with 106,000 feet of timber and 459,000 feet of lumber; Spanish bark Gwendoline for St. Sebastian with 249,000 feet of lumber, and schooner E. Kranz for Boston with 503,000 feet of lumber from the Hilton-Dodge Lumber Co.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

ALABAMA.

Centreville—Lumber Mills.—Hunnleutt & Neal will build a \$25,000 saw and planing mill on site of four acres near Centreville.

Cullman—Land Cultivation, etc.—The Alabama Vineyard & Winery Co. has been organized, with capital stock of \$150,000, and E. Tracey, president; J. E. Clarke, vice-president, and W. F. Fuller, treasurer; company will develop 8000 acres in grapes, manufacture wine, etc.; address vice-president.

Fayette—Sassafras-oil Mill.—The Essential Co. will establish a mill for the manufacture of sassafras oil.

Montgomery—Water Works.—The city contemplates the construction of water works at a cost of several hundred thousand dollars and will probably announce a definite decision concerning the subject shortly. Address the mayor.

Opelika—Oil Mill.—C. W. Ashcraft contemplates the erection of a 40-ton cotton-seed-oil mill.*

ARKANSAS.

Little Rock—Excelsior Factory.—An excelsior factory will be erected. George W. Sanders can give information.*

Wynne—Dry-kiln.—The Kennedy & Morelock Stave Co. will build a new dry-kiln for tight-barrel staves.

FLORIDA.

Jacksonville—Naval Stores Company.—Incorporated: The Thompson Naval Stores Co., capital stock \$10,000, by J. Henry Thompson, of Hazlehurst, Ga.; Lawrence R. Akins, of Mount Pleasant, Ga., and Columbia Downing, of Brunswick, Ga.

Quincy—Ice Factory.—William Hardon will equip an ice factory.

GEORGIA.

Acworth—Cotton Mill.—Eastern parties contemplate locating a cotton mill at Acworth. John Awtry can give information.

Atlanta—Knitting Mill.—The Dixie Knitting Co. (S. A. Magill) will rebuild at once its burned hosiery mill, erecting a plant worth about \$16,000.

Atlanta—Gas Mains.—The Atlanta Gas-light Co. will probably extend its gas mains.

Barnesville—Back-band Factory.—R. C. Iriverson, of Senola, Ga., contemplates establishing back-band factory in Barnesville.

Barnesville—Cotton Mill.—W. B. Smith, mayor, is corresponding with a Northern cotton-mill owner regarding the removal of a \$100,000 plant to Barnesville.

Cartersville—Mineral Lands Development. The Iron Belt Mining Co. has been organized, with John W. Akin, president, to develop mineral lands, 17,000 acres in extent, formerly controlled by the Georgia Coal & Iron Co.

Clarkston—Cannery.—A company will be formed to establish a cannery. T. J. Freer can be addressed.

Dalton—Electric-light Plant.—The city council talks of erecting electric-light plant in place of gas plant, at present used; also sewers may be built. Address the mayor.

Macon—Machinery Dealers.—Incorporated: The Mallory Bros. Machinery Co., capital stock \$25,000, by F. L. Mallory and W. A. Taylor.

Rockmart—Cotton Mill.—The mill reported last week will include dyeing plant and bleaching, and will be built at a cost of several hundred thousand dollars by New York capitalists who are represented by S. R. Campbell, treasurer, and F. C. Walcott, superintendent of the New York Mills, New York. The plant of the company referred to (in New York) has 75,000 spindles and 1800 looms.

Rome—Iron Foundry.—Incorporated: The Southern Co-operative Foundry Co., with capital stock of \$20,000, by A. Randall, M. C. Smith, C. E. Millican, M. M. Crocker, J. W. Russell, W. H. Alexander and others. Company will erect a foundry at once. For information address Capt. John J. Seay.

Rossville—Woolen Mill.—The Park Woolen Mills will enlarge, extend and improve its mill, previously stated as contemplated.

Savannah—Towing Company.—Wm. W. Williamson, H. P. Smart, Emile Newman, Jordan F. Brooks and William Garrard will incorporate the Savannah Navigation, Towing & Salvage Co., for towing and navigating purposes. Address Capt. Wm. W. Williamson.

KENTUCKY.

Louisville.—The L. D. Bax Undertaking Co. has been incorporated with capital stock of \$5000.

Petersburg—Distillery.—Freiberg & Workum (office Cincinnati, O.) will rebuild at once that portion of their distillery which was burned last week. The loss was \$20,000, but the portion burned was only a small part of the plant.

LOUISIANA.

Abbeville—Sugar Mill.—O. M. Wilson, president Vermillion Sugar Co., will build a sugar mill of 10,000,000 pounds capacity at Perry's Bridge.*

White Castle—Ice Factory and Electric-light Plant.—A stock company is being formed to erect an ice factory and electric-light plant. Col. James A. Ware can give information.

White Castle—Electric-light Plant.—Col. James A. Ware will put an electric-light plant in his sugar mill.

MARYLAND.

Baltimore—Skirt Factory.—Incorporated: The American Skirt Manufacturing Co., by Abraham Greenbaum, Walter H. Tunis, Henry A. Clark, George H. Winchester and Joseph B. Seth. The capital stock is \$5000.

Cambridge—Cannery.—Ivy L. Leonard, Leonard Packing Co., will establish a cannery of 10,000 cans daily capacity.

Chestertown—Electric-light Plant.—W. J. Hoffman and J. K. Wright have franchise to light the town and will erect electric plant at a probable cost of \$15,000.

Cumberland—Dyeing Plant.—Thos. Footer is erecting an addition to his dyeing plant, two stories high, 80x165 feet.

Cumberland—Publishing Company.—Incorporated: The Independent Publishing Co., with a capital stock of \$6000, by Joseph B. Finan, Charles W. Donnelly, Hervey Laney, Thomas Footer and Isaac Hirsch.

Cumberland—Improvement Company.—Incorporated: The Cumberland Improvement Co., by J. Henry Holzh, David P. Miller, Arthur H. Amick, Simon Rosenbaum and

Robert R. Henderson, for improvement purposes, capital stock being \$20,000. Address Mr. Holzh.

Cumberland—Brick Works.—The Queen City Brick & Tile Co., previously reported as formed, will erect at once a plant for the production of building and vitrified brick, tiles, etc., daily capacity to be 30,000. Address Frederick Perry, manager.

Cumberland—Mattress Factory.—William M. Holmes and R. M. Murdock, of Detroit, Mich., are investigating in Cumberland with a view of establishing a factory for producing mattresses and bedsprings.

Ellicott City—Electric-light Plant.—The Catonsville Ice, Light & Power Co., of Catonsville, Baltimore, Md., will probably arrange with the Ellicott City council for lighting the city. A plant to cost \$40,000 will be erected in the event of the proposed arrangement being completed.

Hagerstown—Brewery.—Charles E. Och, W. G. Nelsner and Joseph Bamgartner, all of Latrobe, Pa., are said to contemplate the erection of a \$75,000 brewery in Hagerstown.

Takoma Park, D. C.—Water Works.—An issuance of bonds for water works has been authorized; address town clerk.

Washington, D. C.—Theater Company.—Incorporated: The Columbia Theater Co., capital stock \$10,000, with Joseph E. Luckett as president.

Washington, D. C.—Electric-light Plant.—Chartered: The Standard Cold Electric Light Co., to manufacture electric lights for surgical use. The capital stock is to be \$100,000, and John Boyd, of Washington, is president.

Washington, D. C.—Electrical Equipment. The Electrical Railway Equipment Co., the purpose of which is the manufacture and equipment of electric railways, has been incorporated with capital stock of \$100,000. Archibald Greenlees, of Washington, D. C., is president and can be addressed.

Westminster—Telephone System.—The Western Maryland Telephone Co. will issue bonds for \$8000 to provide funds for extending its telephone lines to Baltimore city; John M. Reifsnider, secretary.

MISSISSIPPI.

Gulfport—Flour Mill.—J. R. Hood, of State Line, Miss., will build at Gulfport a flour and grist mill to cost \$12,000.

McComb—Electric-light Plant, Water Works, etc.—Sanders & Porter, of Louisville, Ky., will prepare plans and specifications for water works, electric-light plant and sewer system for the city of McComb. Address the mayor regarding proposals, etc.

Scranton—Woodworking Factory.—J. D. Clark contemplates establishing a box and handle factory.*

Summit—Water Works.—The contract for the city's water works will not be awarded on February 1, the date for opening bids having been indefinitely postponed.

MISSOURI.

Campbell—Lumber Company.—Incorporated: The Campbell Lumber Co., capital stock \$16,000, by J. F. Losswell, Louis McCutchen, George W. McCutchen and S. D. Place.

Edgerton—Creamery.—Incorporated: The Edgerton Creamery Co., capital stock \$4000, by William Smith, William Cox, H. T. Stone and others.

Kansas City—Coal Mining.—A. A. Tomlinson, M. B. Tomlinson and J. H. Bovard have incorporated the Northwestern Coal & Mining Co., with capital stock of \$150,000, for purposes as indicated in title of company. Address A. A. Tomlinson.

Kansas City—Rolling Mill.—E. W. McKenna, of Milwaukee, Wis., will build at Kansas City a plant for re-rolling rails by a new process invented by Mr. McKenna; a plant 700x900 feet in size, to produce 8000 rails daily and employ 270 men, is contemplated.

Kansas City—Electric-power Plant.—Statements are made that it is doubtless that a large electric power-house will be erected (possibly in Kansas City, Kan.) for the manufacture of electricity to be distributed for use in packing-houses, factories, on street railways and otherwise. Those said to be interested include Col. D. A. McKibben, John M. Lang and G. W. Kierstead, all of Leavenworth, Texas. Address Colonel McKibben.

Palmyra—Steam Laundry.—Marion Donovan, South Main street, will establish a steam laundry.

Sedalia—Ice and Cold-storage Plant.—Wm. J. Lemp, Sr., Wm. J. Lemp, Jr., Charles A. Lemp and others, of St. Louis, Mo., and E. G. Cassidy, of Sedalia, Mo., will build in Sedalia a cold-storage and ice plant at a cost of about \$100,000, and contract for erection of the necessary buildings has been awarded to Edward Hurley, of Sedalia. When plant is completed the Lemp's Sedalia Cold Storage & Ice Co. will be incorporated to operate it. For information address E. G. Cassidy, Sedalia.

Stahl—Fuel Company.—Incorporated: The American Fuel Co., capital stock \$20,000, by J. J. McDonald, E. W. Easton, T. R. Stokes and others.

St. Louis—Shoe Company.—Incorporated: The Roberts, Johnson & Rand Shoe Co., capital stock \$250,000, by Jackson Johnson, J. C. Roberts, E. E. Rand and others.

St. Louis—Manufacturing Company.—The New Departure Manufacturing Co. has been incorporated, with capital stock of \$4000, by J. F. Casey, F. A. Pleus and W. W. Ellis.

St. Louis—Stationery Factory.—Incorporated: The Croissant-Bowman Stationery Manufacturing Co., capital stock \$7500, by Albert Croissant, W. H. Bowman, G. H. Strathmann and others.

St. Louis—Mercantile.—Incorporated: The C. E. Lanner Grocer Co., capital stock \$8000, by C. E. Lanner and others.

NORTH CAROLINA.

Albemarle—Cotton Mill.—The Efrd Manufacturing Co. is about to plan for the doubling of its mill's capacity, as recently referred to; mill now has 6000 spindles.

Albemarle—Cotton Mill.—John W. Cannon will build a \$200,000 cotton mill for manufacturing fine yarns, with main building 400x75 feet, and will probably employ 600 operatives.

Charlotte—Cotton Mill.—The Crowley Manufacturing Co. is erecting an addition to its towel mill.

Charlotte—Telephone Exchange.—Franchise for telephone system has been secured by J. A. Helvin, as recently noted, and it is probable that the construction of the plant will be commenced soon. Address J. A. Helvin, care of Central Hotel.

Concord—Cotton Mill.—A cotton-mill company is proposed to erect a new plant. J. C. Lippard is interested.

Hickory—Publishing Company.—Incorporated: The Times-Mercury Publishing Co., capital stock \$4000, for newspaper publishing purposes.

High Point—Chair Factory.—A. R. Hammen will build a chair factory.

North Carolina—Cotton Mill.—George P. Taylor, of Clinton, Mass., contemplates the establishment of a cotton mill in the Carolinas.

Raleigh—Cold-storage Warehouse.—Incorporated: The Central Market Cold Storage Co., capital stock \$6000, by R. P. Howell, William Ledbetter and J. J. Barnard, for the purpose of establishing and operating cold-storage warehouses, etc.

Randolph—Gold Mining, etc.—Woods & Betts, of Colorado, will build a 40-stamp mill for gold developments in Rowan country.

SOUTH CAROLINA.

Anderson—Flour and Grist Mill.—A. L. Welch will build a flour mill and grist mill; machinery has been purchased.

Beaufort—Phosphate Company.—Incorporated: The Central Phosphate Co., capital stock \$5000, by Edward W. Hughes, John H. West and John E. Ficken.

Charleston—Granite Quarry.—A. H. Monteith intends to open a granite quarry.

Charleston—Crockery Company.—Incorporated: The Brown Crockery Co., capital stock \$5000, by B. H. Brown, Frederick Lotz and N. A. Humor.

Columbia—Bottling Plant.—Dr. O. E. Thomas will establish a plant for bottling mineral water.

Georgetown—Rice Cultivation, etc.—Incorporated: The Santee Rice Planting Co., capital stock \$55,000, by Capt. S. M. Ward (general manager) and others.

Inman—Flour Mill.—H. A. Wingo will build a flour mill of twenty-five barrels capacity daily.

Kershaw—Mercantile.—Incorporated: The

Gregor-Heath Banking & Mercantile Co., by W. T. Gregor, H. J. Gregor, T. J. Gregor and S. W. Heath, with capital stock of \$15,000.

Mullins—Mercantile.—Incorporated: The W. H. Daniels Supply Co., capital stock \$13,000, by W. H. Daniels and George B. Reeves.

Newberry—Publishing Company.—To incorporate: The Elbert H. Aull Co., capital stock \$5000, for newspaper publishing purposes.

TENNESSEE.

Columbia—Telephone System.—The Citizens' Telephone Co. is being organized to establish a system.

Harriman—Saw Mill.—J. H. Watts, of Nemo, Tenn., contemplates the erection of a large saw mill at Harriman, the construction of log booms and other lumber operations.

Johnson—Woodworking Factory.—G. C. Harris and J. M. Buck are erecting a building which is to be equipped as a saw mill and general woodworking factory.

Knoxville—Fire-extinguisher Factory.—A company with capital stock of \$25,000 will be organized to extend the operations and enlarge the factory of the Marble City Fire Extinguisher Co.

Nashville—Manufacturing.—Granted a Charter: The N. H. Talbot Manufacturing Co., to manufacture glue, bluing, baking powder and saucers. The capital stock is \$25,000, and the incorporators are N. H. Talbot, W. G. Ward, J. H. Bachholz, T. G. Montague and R. D. Teynam.

TEXAS.

Austin—Cannery.—The Commercial Club is endeavoring to organize a company to establish a cannery.

Blanco—Flour Mill.—Crenshaw & Bros. contemplate erecting a flour mill (roller) of fifty to seventy-five barrels capacity daily.

Denison—Mercantile.—Incorporated: The North Texas Commerce Co., of Denison., capital stock \$3000, by J. H. Kalbert, W. J. Martin and W. W. Purdom.

Forest—Lumber Company.—Incorporated: The Chronister Lumber Co., capital stock \$50,000, to manufacture lumber; incorporators, C. J. Chronister, E. R. Maddux and A. P. Brindley. Address Mr. Chronister.

Houston—Laundry.—Incorporated: The Excelsior Steam Laundry Co., capital stock \$15,000, by Otto M. Witte, William E. Saunders and B. Klam.

Lampasas—Cattle Company.—Incorporated: The Skinner Cattle Co., capital stock \$50,000, for dealing in and raising cattle, by J. F. Skinner, E. J. Marshall and J. F. White. Address Mr. Skinner.

Leander—Mercantile.—Incorporated: The H. S. Jennings Co., capital stock \$5000, by E. S. Jennings, J. J. Parker and Oscar Pickle.

Palestine—Publishing Company.—Chartered: The Palestine Publishing Co., capital stock \$5000, by Thomas Hall, Julian Pennypacker, W. M. Lacy and Percy V. Pennypacker.

Sherman—Oil Mill.—It is proposed to form a \$50,000 stock company to erect a cottonseed-oil mill. J. H. Jephcott and H. J. J. Thiesen are interested in the enterprise. The last named can give information.

Stephenville—Cattle Company.—Incorporated: The Cox Cattle Co., capital stock \$5000, by O. S. Houston, C. C. Cox and W. A. Hyatt.

Waco—Gold Deposits.—It is reported that W. H. and W. W. Lanstinger have discovered gold deposits near Waco, Texas.

Wharton—Cotton Compress.—The erection of a cotton compress is talked of. Information can be obtained by addressing Box 25.

Winnboro—Electric-light Plant.—An electric-light plant will be established; W. G. Ragley Lumber Co. can give information.

VIRGINIA.

Graham—Ice Factory.—Chartered: The Mitchell Transparent Ice Co., capital stock \$25,000, to manufacture ice, conduct cold-storage plant, etc.; William Mitchell, president and general manager; W. H. Hansberger, secretary-treasurer.

Lexington—Telephone Systems.—The Rockbridge, Alum, Longdale & Lexington Telephone Co. is the correct name of the telephone company, already reported. For information address J. E. Johnson, president, Longdale, Va. The Lexington Telephone Co., also reported, has its office in Lexington, where W. S. Hopkins, president, can be addressed. [These two companies were erroneously given under West Virginia in

some of the copies of the Manufacturers' Record dated January 21.]

Newport News—Dry-dock, etc.—Included in the proposed improvements of the Newport News Shipbuilding & Dry Dock Co. will be a dry-dock capable of receiving the largest vessels; this announcement has been made by C. P. Huntington, of New York, controlling owner of the enterprise.

Norfolk—Silver-plating Factory.—It is stated that the Bridgeport Silver Plating Co., of Bridgeport, Conn., contemplates removing its factory to Norfolk, and that a representative has been negotiating with Barton Myers for a site.

Norfolk—Realty Company.—Chartered: The Tidewater Realty Co., with J. S. Crawford, president; Hon. H. S. Maynard, vice-president; John L. Watson, secretary and treasurer. The capital stock is to be not less than \$5000 nor more than \$25,000.

Newport News—Water-works Improvements.—The Newport News Light & Water Co. contemplates extensive improvements and enlargements to its water plant, including doubling capacity and an engine to supply 3,000,000 gallons of water daily. W. A. Post, engineer, has prepared plans for the additions.

Norfolk—Kite Factory.—The Southern Box Kite Manufacturing Co., of St. Louis, Mo., has leased a three-story building at No. 9 Fayette street, in Norfolk, and will remove its factory to same.

Norfolk—Pipe Works, etc.—F. T. Wycoff, president of the Wycoff Pipe Co., of Williamsport, Pa., will close a deal for the removal of the Wycoff plant to Money Point, Norfolk, where it will be operated in connection with the Norfolk Cressoting Co., manufacturing together telephone poles, crossarms, pipes, etc., for telephone lines, etc.

Rapps Mills—Onyx Quarry.—The E. B. Hussey & Son Co., of Cincinnati, O., is building a plant for dressing onyx, a quarry of which the company is developing near Rapps Mills.

Richmond—Candy Factory.—Incorporated: The Hardesty Co., capital stock \$50,000, to manufacture candy, etc.; R. H. Hardesty, president; Wm. B. West, vice-president, and R. B. Houghton, secretary-treasurer.

Richmond—Cold-storage Plant.—Incorporated: The Richmond Dry Cold Storage Co., capital stock \$25,000, with R. A. Lancaster, Jr., president, and John A. Lancaster, secretary; purpose, to establish and operate cold-storage plants.

Richmond—Development Company.—A bill has been introduced in both branches of the State legislature for the incorporation of the American Development Co., capital stock \$1,000,000 and privilege of increasing to \$5,000,000, its purpose being to undertake general development work in Virginia and the Republic of Venezuela, S. A. Incorporators are Warren P. Taylor, O. F. Breese, Jr., H. C. Buchanan, Charles V. Carrington, Wirt E. Taylor, Clyde W. Saunders, C. H. Fleming and others, of Richmond.

Winchester—Paper Mill.—The American Strawboard Co. will put in operation the Winchester paper mill, which has been idle for nine years.

WEST VIRGINIA.

Charleston—Paper Mills.—The Charleston Business and Industrial Association is negotiating for the establishment of large paper mills.

Charleston—Publishing Company.—Incorporated: The Tribune Co., for publishing purposes, with capital stock of \$50,000 (privileged \$100,000), by W. M. O. Dawson, of Charleston, W. Va.; J. J. Peterson, of Huntington, W. Va.; A. B. White, of Parkersburg, and others. Address the first-named incorporator.

Elkins—Water Works.—The city council has ordered a special election to vote on the proposed \$30,000 in bonds for water works; A. R. Jones, mayor.

Fayette County—Coal Lands.—Capitalists have purchased 7000 acres of coal lands in Fayette county and will develop same, opening mines, etc. Sale was made through H. A. Robbins, of Fayette.

Sistersville—Mining Company.—The Sistersville Mining Co. has been incorporated with O. W. O. Hardman, president; John Schuenacker, vice-president, and D. M. Morris, secretary. Address the last named.

West Union—Water Works.—Judge Freer has dissolved the injunction restraining the authorities of West Union from selling the bonds authorized to be issued at a late election for putting water works in the town, and the system will be put in as soon as the bonds can be disposed of. Address the mayor.

Wheeling—Reduction Works.—B. F. Howland, of Philadelphia, Pa., will arrange for the erection of reduction works.

BURNED.

Aberdeen, N. C.—Plant of Aberdeen Lumber Co.; loss \$25,000.

Greensboro, N. C.—Flour mill of Walter Benbow.

Marco, La.—Gin of Mrs. Catherine Caubreaux.

Salisbury, Md.—Salisbury Manufacturing Co.'s lumber plant; loss \$8000.

BUILDING NOTES.

Angleton, Texas—Dwellings.—A. A. Summerville, W. J. Noblitts, J. L. Noblitts, H. A. Potter, J. D. Howell, O. C. Deloney, J. G. Noll, A. B. Miller, J. P. O'Daniel and A. B. Mayes will each build a dwelling.

Atlanta, Ga.—Sanitarium.—Dr. George H. Noble will build a sanitarium after plans by Butt & Morris.

Augusta, Ga.—Office Building.—Leonard Phinzy will remodel building to office structure, adding several stories and making other improvements.

Baltimore, Md.—Dwellings.—William H. Baker, Sr., will erect twelve three-story dwellings.

Baltimore, Md.—Church.—A. H. Bieler is completing plans for a \$50,000 church for the Sharp Street African M. E. congregation; Rev. D. W. Hayes, pastor.

Baltimore, Md.—Dwellings.—William W. Baker, Sr., will erect twelve three-story brick dwellings. M. S. Watson will erect six two-and-a-half-story dwellings. Plans are being prepared for a \$75,000 addition to Loyola College; address Rev. Fr. Morgan, president.

Charlotte, N. C.—Dwelling.—M. L. Alexander will build a dwelling.

Chattanooga, Tenn.—Warehouse.—The Chattanooga Cotton Oil Mills will build a warehouse.

Columbus, Miss.—Orphanage.—Contract awarded to Stansell Bros. & Atkinson for the erection of building for Palmer Orphanage Association.

Dayton, Tenn.—Store.—Earl Nye, of Cleveland, Tenn., will erect a two-story glass-front store building in Dayton.

El Paso, Texas—City Hall.—It is proposed to build a city hall. Address the mayor.

Florence, Ala.—Cottages.—A. A. McGregor will build five cottages.

Gainesville, Ga.—Warehouse.—Canning Bros. will build a corrugated iron warehouse 22x90 feet.

Georgetown, Texas—College Buildings.—The Southwestern University will erect new buildings to cost \$50,000. Address Dr. F. B. Sine, financial agent.

Hattiesburg, Miss.—School.—Contract for erection of schoolhouse at Hattiesburg let to C. M. Rubush, of Meridian, Miss., at \$9700.

Huntsville, Ala.—Warehouse.—A fertilizer company will build a large warehouse for storing guano; secretary Chamber of Commerce can give information.

Jackson, Ga.—Courthouse.—J. H. McKenzie & Co., of Augusta, have obtained contract to build the \$25,000 courthouse for Butts county at Jackson.

Joplin, Mo.—Brick Block.—A. C. Spring, of Somerville, Mass., will build a brick building block in Joplin.

Kinston, N. C.—Warehouse.—R. W. Canady will build a tobacco warehouse and prizehouse 100x200 feet.

Knoxville, Tenn.—Asylum.—Adams & Bearden, of Chattanooga, will prepare plans and specifications for an additional building to be built for the Eastern Hospital; estimated cost of building to be \$25,000.

Lexington, Ky.—Courthouse.—Fayette county will build a \$150,000 courthouse. Address county clerk.

Louisville, Ky.—Warehouse.—W. B. Belknap & Co. will remodel warehouse at a cost of \$5000.

Lynchburg, Va.—Business Buildings.—Contract let to John Parrish & Co. for erection of brick business building for Dr. Thornton.

Macon, Ga.—Hotel.—Architect Denny has furnished to Henry Horne plans and specifications for the proposed new hotel.

Macon, Ga.—Hotel.—It is proposed to enlarge and remodel the Hotel Lanier to a 350-room hostelry. Address Mr. Newcomb, manager.

Nashville, Tenn.—Clubhouse.—The Standard Club will erect a clubhouse to cost probably \$15,000.

New Braunfels, Texas—Courthouse.—Plans by J. Riley Gordon, of San Antonio, have been accepted for the proposed courthouse for Comal county. Address the county clerk.

New Orleans, La.—It is stated that Messrs. Kiaw & Erlanger will build a theater.

Palmyra, Mo.—Residence.—Marion Donovan will build a residence.

Quincy, Fla.—Stores.—E. B. Woodberry and T. D. Ellis will erect three brick stores.

Richmond, Va.—University Buildings.—Eight buildings will be erected for the Virginia Union University, to cost about \$100,000, and plans for three of the buildings have been prepared by John H. Coxhead, Buffalo, N. Y.

San Antonio, Texas—Market-house.—Plans have been prepared for remodeling the city market-house, to cost \$15,000. Address the mayor.

St. Joseph, Mo.—Hotel.—J. H. Helmes will probably remodel the Center block into a modern hotel with all conveniences.

St. Louis, Mo.—Apartment-house.—Plans are being perfected for a six-story fireproof structure of 200 rooms; C. H. Deitering, architect, can give information.

Washington, D. C.—Dwellings, etc.—Pacifcus Ord has permit for the erection of a store and flats building to cost \$10,000. Edward Woltz has prepared plans for remodeling dwelling, etc. John H. Walter has permit for erection of seven dwellings, to cost \$20,000, and have furnaces, cabinet mantels, tiled baths, electric fixtures, etc.; plans by N. R. Grimm.

RAILROAD CONSTRUCTION.

Railways.

Baltimore, Md.—It is reported that the Western Maryland Railroad Co. is considering an extension of its line from Hagerstown, Md., to what is known as Shippensburg Branch. John M. Hood, at Baltimore, is president of the company.

Bluefield, Va.—It is reported that the Norfolk & Western may construct the proposed branch along the Tug river valley this year. It will extend along what are known as Dry Fork and Indian creeks, in the soft coal district. J. H. Sands, at Roanoke Va., is general manager.

Cartersville, Ga.—The Iron Belt Railroad & Mining Co. has been formed to build the railroad line to what are known as the Sugar Hill iron-ore beds. The line will be about six miles long. T. B. Redmond (present address Cartersville) is the contractor, and John W. Akin president of the railroad company.

Centre, Texas.—The company building the railroad line between Centre and Teneha, Texas, has been chartered under the title of the Centre & Teneha Railroad Co., with \$12,000 capital stock. The line is to be about eleven miles long. Among those interested are J. M. Leister, A. B. Knight and others. The principal office is at Centre, Texas.

Chico, S. C.—It is reported that D. L. Risley, of Philadelphia, and others have secured the Berkeley Railroad, owned by the South Carolina Land & Lumber Co., and will extend it from its present terminus to Eutawville, a distance of sixteen miles. The new owners have elected Mr. Risley president; Edward Moore, manager, and J. L. Costo, general passenger agent, all of Philadelphia.

Charleston, W. Va.—The Deepwater Railroad Co. has been chartered to build a line from Deepwater, in Fayette county, to Upper Loup creek. The line will connect a tract of coal land owned by Abraham S. Hewitt, of 17 Burling Slip, New York, and others with the Kanawha & Michigan Railroad and will be about sixty miles long.

Coleman, Texas.—W. G. Sneed, chief engineer of the Vining & Coleman Railroad Co., writes the Manufacturers' Record that construction has begun on the first section of this road, twenty-seven miles in length. The company has purchased twenty-five miles of rail, also the necessary ties. Contracts for grading have not been given out as yet. The total length of this road is to be sixty-six miles.

Cumberland, Md.—David P. Miller, Robert R. Henderson and others have organized the Cumberland Improvement Co., which, it is reported, may build an electric line in the city and suburbs. The capital is \$20,000.

Elba, Ark.—The branch of the Plant system between Elba and Newton, Ala., is about half completed and will be in operation in about three months. B. Dunham, of Savannah, Ga., is superintendent of the system.

El Paso, Texas.—The New Mexico Coal &

Railroad Co., now building the line from El Paso to the White Oaks coalfields, has formed the White Oaks & Kansas City Railway. The incorporators are J. A. Eddy, W. A. Hawkins, H. A. Connor, G. L. Christie and W. H. Austin. The directors are C. D. Simpson, Scranton, Pa.; B. S. Harmon and G. C. W. Lowry, New York; John A. Eddy, Denver; C. B. Eddy, W. A. Hawkins, Max Frost, New Mexico. The capital stock is \$4,000,000. The road runs from near White Oaks, Lincoln county, New Mexico, to points on the New Mexico-Texas line, about 250 miles north, connecting with a road of the same name to be chartered under the laws of the State of Texas.

Hanceville, Ala.—It is stated that mine-owners are interested in a proposed railroad from Hanceville to the Purvis coal mines, which will be about eight miles in length.

Lake Providence, La.—The town of Mer Rouge has voted a tax in favor of Lake Providence & Western Railroad, provided the line is completed between Lake Providence and Mer Rouge by January 1, 1899. L. J. Hanley, at Lake Providence, is secretary of the promoting company.

Leeds, Ala.—The branch of the Southern Railway to the brown ore beds near Leeds to be developed by the Sloss Iron & Steel Co. will be eight miles long. Surveys have been made, and it is stated that the railway company is about to let contracts for the work. C. H. Hudson, at Washington, D. C., is chief engineer.

Little Rock, Ark.—About 200 men, it is stated, are now at work on the Springfield, Little Rock & Gulf Railroad grading the right of way. John A. Hinsey, at Little Rock, is president of the company.

Loganville, Ga.—An agreement has been made, it is reported, for the construction of the proposed line from Loganville to a connection with the Seaboard Air Line at Lawrenceville, Ga., eight miles. E. St. John, at Portsmouth, Va., is vice-president of the Seaboard Air Line. One of the promoters is J. P. Rockwood, of Loganville.

Moundsville, W. Va.—The people of Marshall county have asked the County Court to order an election to vote on issuing \$100,000 in bonds in aid of the Pittsburg, Connellsville & Moundsville Railway. It is stated that this road is projected from a connection with a line entering Pittsburg to the Ohio river, and is to traverse Marshall county east and west.

Reidsville, N. C.—It is reported that the Chamber of Commerce of Winston has decided to have a survey made for a new railroad between Reidsville and Kernersville and place Winston directly on the main line of the Southern system in connection with the new road now being built between Mocksville and Mooresville.

Sievern, S. C.—A bill is pending in the South Carolina legislature to incorporate the Sievern & Knoxville Company. [This is supposed to be an extension of the Greenwood, Anderson & Western Railroad into the western portion of the State.—Ed.] J. H. Wagener, of Charleston, is one of the directors of the latter company.

Spartanburg, S. C.—It is reported that the Louisville & Nashville Railroad Co. is negotiating with the view of securing the Ohio River & Charleston and extending it as originally proposed to Spartanburg. A representative of the Louisville & Nashville, it is stated, has recently been in Spartanburg examining the proposed right of way.

Tryon, N. C.—The people of Polk county are interested in a plan to build a road from Tryon and Columbus to Rutherfordton to connect with the Seaboard Air Line. A committee has been appointed to obtain subscriptions to stock in such a company.

Washington, D. C.—It is reported that O. T. Crosby, president of the Potomac Light & Power Co., of Washington, and a director of the Georgetown & Tennytown Railroad Co., has formed a syndicate to secure that part of the Columbia & Maryland line between Washington and Hyattsville, Md. It is to have \$1,000,000 capital, and is to be called the City & Suburban Railway Co. If secured the road will probably form part of the Georgetown & Tennytown road.

White Castle, La.—James A. Ware informs the Manufacturers' Record that he and others will build about five miles of narrow-gauge line to be laid with 25-pound rails. It is to be operated on a sugar plantation.

White Sulphur Springs, W. Va.—It is reported that Messrs. Gooch & Rinehart, of Covington, Va., are negotiating with a view of obtaining a contract to build the branch of the Chesapeake & Ohio Railroad along Greenbrier valley.

Street Railways.

Baltimore, Md.—The Consolidated Railway Co. has secured a franchise to extend its trolley system in the western part of the city a distance of two miles. William A. House is president of the company.

Birmingham, Ala.—The Birmingham Traction Co. will have the East Birmingham dummy line rebuilt for the use of electric motors by April 1. Rolling stock has been ordered for the line. G. M. Williams may be addressed.

Corsicana, Texas.—It is reported that work is to begin on the proposed street railroad about April 1. M. B. Bright is one of the promoters of the enterprise.

Lexington, Va.—John R. Williams, of Richmond, and Augustine Royal, of Manchester, Va., are interested in a plan to build an electric railroad in Lexington, to be about three miles in length.

Newport News, Va.—The Newport News & Old Point Street Railroad Co. has obtained a franchise from the city to extend its electric line along several additional streets in the city. J. T. Darling, at Hampton, Va., is superintendent of the company.

Portsmouth, Va.—It is reported that the Portsmouth Electric Railway Co. will begin work on its extension to Gilmerton, also to Churchland, early in February. H. G. Williams is president of the company.

Washington, D. C.—The residents of the northeastern section of the city are endeavoring to secure an extension of the electric railroad system in that part of the city. A. R. Serren is one of the committee in charge.

Washington, D. C.—It is announced that the Baltimore Trust & Guarantee Co. has agreed to furnish the necessary funds to build the Washington lines of the Columbia & Maryland system as soon as the present litigation is settled. The lines referred to comprise the Eckington & Soldiers' Home Railroad, the Maryland & Washington Railroad and the Belt Line in Washington. W. Kesley Schoepf is receiver.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Baking Machinery.—See "Cracker Factory."

Baling Press.—See "Excelsior Machinery."

Brick Machinery.—Edw. E. Gordon, Elba, La., wants brick machinery of 15,000 to 20,000 capacity daily.

Brick Machines.—W. F. Goodman, Concord, N. C., wants to buy a brick machine.

Broom Machinery.—T. M. Rogers, Concord, N. C., wants to buy machinery and materials for broom factory.

Compress.—J. E. Lemmonds & Son, Hornet, N. C., want to buy a steam press for packing cotton.

Cotton Compress.—Box 25, Wharton, Texas, can give information of contemplated cotton compress.

Cotton Gln.—E. S. Cobia, Cedar Bluff, Ala., is in the market for a cotton gln.

Cotton-mill Machinery.—P. W. Odom, Box 279, El Reno, O. T., wants addresses of makers of machinery for manufacturing cotton batting.

Cracker Factory.—O. D. Curry, Winchester, Ky., wants estimates on cracker-factory equipment complete; machinery to be shipped to Mexico.

Distillery.—O. D. Curry, Winchester, Ky., wants estimates on cost of complete distilling (whisky) plant; machinery to be shipped to Mexico.

Dredging Apparatus, etc.—Jos. H. Hatch, Room 18, 84 Summer street, Boston, Mass., wants catalogues and prices on oyster dredges, etc.

Electric-light Plant.—Bids for the erection of electric-light plant at Washington, La., will be received until February 8. Ad-

dress or apply Robert R. Zell, Godchaux Building, New Orleans, La.

Electric-light Plant.—Sealed proposals will be opened February 10 by the city of Gallatin, Mo., for the construction of electric-light plant and water works. Maps, plans and drawings can be seen at office of city clerk, H. Y. Tarwater, Gallatin, Mo., or at office of the engineer, George C. Morgan, 1012 New York Life Building, Chicago.

Excelsior Factory.—George W. Saunders, Little Rock, Ark., 414 West Thirteenth street, wants to buy machinery for manufacturing excelsior, including press for baling.

Fire Equipment.—A fire company will be organized and buy equipment. Address John W. Anderson, Belair, Md.

Flour Mill.—Crenshaw & Bros., Blanco, Texas, want estimates on roller flour mill of fifty to seventy-five barrels capacity daily.

Heating Plant, etc.—Proposals will be opened February 7 for installing low-temperature hot-water heating apparatus in United States building at Norfolk, Va. Address supervising architect, Washington, D. C.

Hose.—The city of Louisville, Ky., will buy 8000 feet of cotton hose (2½-inch); address City Buyer Weaver.

Levee Work.—Sealed proposals will be opened February 5 for construction of pile revetment. Address N. S. Hoskins, chairman board of control, New Orleans, La.

Machine Tools.—P. H. Thompson, Salisbury, N. C., is in the market for a 14 or 16-inch engine lathe, automatic gear cutter, hook saw machine, etc.; second-hand or new.

Machine Tools.—New Orleans Roofing and Metal Works, 928 Lafayette street, New Orleans, La., is in the market for one deep-throat hand-lever punch, to punch holes ¾x¾; second-hand machine will do.

Office Furniture, etc.—The Exchange Bank, Fort Valley, Ga., wants to buy complete outfit of office furniture, desks, railings, etc. Address A. D. Skellie, cashier.

Oil Mill.—C. W. Ashcraft, Opelika, Ala., wants estimates on 20, 30 and 40-ton cotton-seed-oil mill.

Pumping Machinery.—Rufus Hardy, Corsicana, Texas, will need soon a pumping outfit for oil wells.

Pumping Plant.—An electric pump will be purchased, of capacity 600 gallons per hour, exerting pressure of eighty pounds, to be attached to water mains direct for fire protection only. Address Dr. L. I. Turner, Roland Park, Baltimore, Md.

Railway Equipment.—The North Little Rock Street Railway Co., Maxwell Coffin, president, Little Rock, Ark., will need about three miles of rails and rolling stock (probably four to six cars).

Railway Equipment.—Chilhowie Lumber Co., Chilhowie, Va., is in the market for two miles of steel rails.

Railway Equipment.—Montevallo Lump Coal Mining Co., Dogwood, Ala., is in the market for 130 tons of 56-pound relay rails, with necessary connections, etc.; quote prices delivered.

Road Machinery.—Greer Machinery Co., Knoxville, Tenn., is in the market for a second-hand road roller.

Roofing, etc.—Shirley & Butler, Dermott, Ark., are in the market for materials for three ironclad warehouses 25x75 feet in size.

Roofing, etc.—Fred L. Robertson, Brooksville, Fla., wants prices on corrugated iron for sidings, etc.

Sugar Mill.—O. M. Wilson, president Vermillion Sugar Co., Abbeville, La., wants complete sugar mill, including six-foot roller mill, twelve classifiers, 150,000-gallon triple effect, nine-foot vacuum pan, three 40-inch centrifugals and mixer, engines, pumps, boilers, etc.

Telephone Equipment.—D. A. Tyson Telephone Co., Rixville, Ga., wants 300 long-distance telephones and 300 miles of No. 12 gauge wire, galvanized.

Telephone Instruments, etc.—James A. Hall, Marsh Market, Va., will want to buy 'phones, lines, etc., for telephone system.

Threshing Machine.—Comstock Bros., Uniontown, Ark., want a pea thresher for stock peas.

Water Works.—See "Electric-light Plant."

Water Works.—The city of Summit, Miss., has postponed until further notice the date for opening bids on water works, which was to have been February 1.

Woodworking Machinery.—Wanted.—Several second-hand planers. Address P. O. Box 98, Amite City, La.

Woodworking Machinery.—J. D. Clark, Scranton, Miss., wants to buy machinery for manufacturing handles and boxes.

Woodworking Machinery.—J. Walter Ho-sler, 42 Sycamore street, Suffolk, Va., wants to buy machinery for making wooden tubs, buckets, etc.

Woodworking Machinery.—White-Hall Co., Dillwyn, Va., is in the market for large wood-turning lathe and tools; new or second-hand.

TRADE NOTES.

Refrigerating Plants.—Two 18-ton refrigerating machines will be built at Worcester, Mass., by the York Manufacturing Co., of York, Pa., for Mr. G. Stevens, and a 10-ton freezing system for the York Ice & Refrigerating Co., at York.

Foreclosure Sale.—An opportunity for investors is offered in a well-equipped electric-lighting plant at Lynchburg, Va. The plant is offered at foreclosure, to be sold February 28. Information can be obtained from Tyree & Wilkins, Lynchburg, Va.

Manufacturing Sites.—A natural site, having an abundance of raw material at hand, ample transportation facilities and other advantages, is offered for factories of any kind in Chilton county, Ala. Mr. Jonce L. Gardner, Randolph, Ala., can give information.

Ice Machines.—Contracts for ice machines closed recently by the Fred W. Wolf Co., of Chicago, Ill., include a 50-ton refrigerating machine at Baltimore, 60-ton ammonia condenser at Chicago, 25-ton ice plant complete at Nashville and a 60-ton ice plant complete at New Orleans.

A Good Record.—A telegram from Kansas City to the Playford Stoker Co., of 404 Telephone Building, Cleveland, O., says: "Final test made yesterday; over seven pounds actual feed water 30." This result, the company claims, beats all records, showing 75 per cent. efficiency from Cherokee (Kan.) stack coal.

Woodworking Machinery for Russia.—The Egan Co., of Cincinnati, O., has just made a shipment of twelve carloads of wood-working machinery to the Russian government, St. Petersburg. This is claimed to be the largest export shipment of such machinery ever made, and speaks well for the enterprise of this progressive concern.

Mason-Northrop Loom.—The notice of the Mason Machine Works' loom, which appeared in our last issue, was not quite correct. The Mason Machine Works, of Taunton, Mass., is building looms with the Northrop automatic filling supply and warp stop motion (under a license from the Draper Co.) which the company calls the Mason-Northrop loom.

Electrical Cableway.—S. E. & H. L. Shepherd, of Rockport, Me., have in use an electrically operated cableway, built by the Lidgerwood Manufacturing Co., of New York, in which electric motors are installed in twins, operating the hoisting drums located near the head tower. The machine works with remarkable smoothness. It employs the standard Lidgerwood carriage and the Miller fall-rope carriers.

Car Shops Contract.—In awarding contract for the machinery for the new car shops of the John Stephenson Co., at Elizabeth City, N. J., Messrs. J. A. Fay & Co., of Cincinnati, O., were given orders for twenty-six machines out of thirty wanted; the other four machines were furnished by two other companies. Recent foreign equipments sold by Fay & Co. were for car shops at Sormova, Russia, and Paver, Russia.

Ice Machines.—Recent contract filed by the York Manufacturing Co., of York, Pa., called for a 30-ton ice plant at Fresno, Cal., operated by electricity throughout; 400-ton refrigerating machine at Kansas City, Mo.; 15-ton ice machine at Newport, R. I.; 15-ton refrigerating plant at Lock Haven, Pa.; 25-ton ice plant at Greenfield, Ind.; two 40-ton refrigerating machines and a 15-ton ice machine at Columbia, Pa., and a 15-ton refrigerating plant in New York city.

Farewell Banquet.—The removal of the auditing department of Westinghouse, Church, Kerr & Co. from the New York to the Pittsburg office made it necessary for Mr. Warren L. Murray, the auditor, and Mr. Gardner W. Kimball, his associate, to remove permanently to the Pennsylvania city. The long service of these two gentlemen determined their associates in the firm to tender them a farewell banquet, which was accordingly done on January 5 with most pleasing results.

TRADE LITERATURE.

Mine Pumps.—Circular No. 19 of the Snow Steam Pump Works, of Buffalo, N. Y., contains a series of photo-reproductions of the company's line of duplex mine pumps.

Stone-planing Machinery.—The improved stone-planing machine manufactured by the Lincoln Iron Works, of Rutland, Vt., is described and illustrated in a circular issued by the company.

Ice Machinery, etc.—Two circulars recently issued by the Fred W. Wolf Co., of Chicago, Ill., give instructions for packing the Linde ice machines, and give description of the company's atmospheric ammonia condenser.

Calendar.—The '98 calendar of the S. Howes Co., of Silver Creek, N. Y., is now being distributed to the trade. It is of the wall variety and shows a number of illustrations of machines such as the company produces; copies on application.

Tackle-blocks Catalogue.—An illustrated catalogue and price-list of wood and wrought iron and steel tackle blocks is now being issued by the Western Block Co., of Westport, N. Y. This catalogue is complete, with illustrations, specifications, price-lists, etc.

Motors.—For safety, economy and convenience the motors manufactured by the American Motor Co., of Havemeyer Building, New York city, are well known. The company's line of light, strong and simple motors, operated by kerosene, gasoline (liquid or vapor), city gas or natural gas is illustrated and described in a catalogue just issued. Special motors for vehicles, launches and skiffs are also made.

American Cableways.—A pamphlet entitled "American Cableways in Open-Pit Mining," by Spencer Miller, American Society Civil Engineers, is being distributed by the Lidgewood Manufacturing Co., of 96 Liberty street, New York city. The cableways referred to in the paper were installed by the Lidgewood Company, and a special sketchbook illustrating Lidgewood cableways is sent on application.

Correspondence Schools.—The growth of the correspondence school system in this country has been a marked feature of recent years in the education world. One of the principal schools is the International Correspondence Schools of Scranton, Pa., which has just issued a booklet containing endorsements of its electrical engineering courses received from ninety-six students, located in every State of the Union, besides Australia, Canada, Great Britain, India and New Zealand. Copies of the booklet sent on application.

Fittings and Flanges, etc.—We have received an advance copy of a little book published by the Tight Joint Co., of 159 Bank street, New York city, descriptive of standard high-pressure fittings and flanges. The book is by John Platt (of Thorpe, Platt & Co., engineers and agents, 97 Cedar street, New York city), and contains a description of special fittings, and gives tables of sizes of flanges for 750 and 1500 pounds pressure per square inch; also, information for use in designing hydraulic plants, information on riveting, forging and flanging, etc.

Everything for the Garden.—Everything for the garden is treated upon in the 1898 illustrated and descriptive catalogue of Messrs. Peter Henderson & Co., 35 and 37 Cortlandt street, New York city. The renown of this firm for supplying seeds, plants, bulbs, etc., of all kinds has been known for fifty years, and its present catalogue is larger and more interesting than usual because of the new features that have been inserted in it. Market gardeners, truckers and those who plant for their amusement and pleasure will find in this catalogue a complete list of everything for the garden and many handsome colored representations of the product of Henderson seeds. Messrs. Henderson & Co. have ceased their connection with the wholesale trade and are now supplying consumers direct. Send for catalogue.

"A Word to the Wise Is Sufficient."—Manufacturers who use drop forgings of any description whatever will find their time well employed if they will obtain and examine a copy of the illustrated catalogue and price-list issued by the Keystone Drop Forge Co., of American and York streets, Philadelphia, Pa. Successful men in the manufacturing world keep themselves well posted as to where can be purchased the

best goods at the lowest prices for their respective uses, and correspondence is invited by the Keystone Company regarding discounts and large orders. The Keystone Drop Forge Co. produces a line of drop forgings of every description, in iron, steel, copper and bronze, such as dentists' instruments, surgical instruments, carriage and harness trimmings, firearms forgings, bicycle forgings, sewing-machine parts, thumb screws, bits, etc. Besides manufacturing this extensive line, the company devotes most of its plant to turning out drop forgings of special design.

The Proposed Newport News Dry-Dock

A dispatch from Newport News to the daily papers states that Mr. C. P. Huntington will shortly commence construction upon the immense dry-docks which the Manufacturers' Record has several times mentioned as likely to be built by the Newport News Shipbuilding & Dry Dock Co. It has been estimated that this dry-dock, when built, would involve an expenditure of \$1,000,000 and would be the largest and most complete dock in the United States; but the matter has not been definitely decided upon, as a telegram from Mr. Huntington to the Manufacturers' Record, under date of January 26, says that he cannot send any particulars, as he does not know yet whether he shall build the dock or not. The matter has been given such full consideration, however, that the Manufacturers' Record feels safe in predicting that it will be built in the near future.

The Birmingham Steel Plant.

Last spring the Manufacturers' Record published a report made by an expert who had been employed by foreign capitalists to investigate the advantages of Birmingham for a large steel plant. Since this report was sent to the principals in Europe rumors have constantly been started that a million-dollar steel plant would be the outcome. It is quite probable, as announced in the Manufacturers' Record last week, that a steel mill will shortly be established at Birmingham, but the dispatches announcing that it will be immediately constructed by English capitalists are premature. The fact is, there are good prospects for two large steel mills being built at Birmingham; one of them, is almost definitely assured and the other is a good possibility.

A 50,000-Spindle Mill Starts.

The Indian Head Cotton Mills, just completed at Cordova, Ala., commenced operations on the 25th inst., giving employment to 1000 persons. The mills contain 50,000 spindles and 10,000 looms. The plant is owned by Boston capitalists, who chose this location because of the proximity to cotton and fuel supplies.

The company has sold its entire output, consisting of coarse-grade cloths, for several years ahead in China, and will double its capacity within the next year to meet the demands being made from Asia.

This enterprise has been referred to and its progress noted at various times in the Manufacturers' Record. Mr. Harcourt Amory, of Boston, is the principal investor in the plant.

The Journal is at a loss to understand the spirit that actuates some of its Southern contemporaries in impugning the motives or methods of the Manufacturers' Record, of Baltimore. No doubt there are those who at times will be impelled to disagree with the Manufacturers' Record, but what of that? Why lose temper and manners, too, on that account? One has often to differ from a good friend as to matters of detail or method, and surely differences between Southern papers as to the welfare and progress of our section are but of method and detail, and not of principle. To our mind the Manufacturers' Record has done and is doing material good for the

South. It is impartial, earnest and candid. It has the ear and the confidence of people who can help us build up our section. Why try to negate its efforts or challenge its motives? There is neither wisdom or justice in so doing.—Cotton Ginners' Journal, Waco, Texas.

PIG-IRON PRODUCTION.

The Largest in the Country's History.

The production of pig iron in the United States in 1897 was larger than ever before in the history of the country, reaching 9,652,680 tons, but even these figures will doubtless be exceeded in 1898, as we are now producing at the rate of about 1,000,000 tons a month. The American Iron and Steel Association has received from the manufacturers complete returns of the production of pig iron in the United States in 1897 and also complete returns of the stocks of unsold pig iron in the hands of makers or their agents at the close of the year.

The total production of pig iron in 1897 was 9,652,680 gross tons, against 8,623,127 tons in 1896, 9,446,308 tons in 1895, 6,657,388 tons in 1894, 7,124,502 tons in 1893, 9,157,000 tons in 1892, 8,279,870 tons in 1891 and 9,202,703 tons in 1890. The production in 1897 was 1,029,553 tons more than in 1896, an increase of almost 12 per cent. The increase was almost wholly in the last half of 1897.

The production of Bessemer pig iron in 1897 was 5,795,584 tons, against 4,654,955 tons in 1896, and 5,623,695 tons in 1895. The increase in 1897 over 1896 was 1,140,629 tons. The production of basic pig iron in 1897 was 556,301 tons, against 336,403 tons in 1896.

The stocks of pig iron which were unsold in the hands of manufacturers or their agents on December 31, 1897, and which were not intended for their own consumption, amounted to 656,489 gross tons, against 827,163 tons which were similarly held on June 30, 1897, and 711,649 tons on December 31, 1896. These figures of unsold stocks do not include pig iron sold and not removed from the furnace bank, nor pig iron manufactured by rolling-mill proprietors for their own use.

In addition to the stocks of pig iron above noted as unsold on December 31, 1897, there should be added 218,489 tons in the yards of the American Pig Iron Storage Warrant Co. which had passed out of the hands of the makers, making 874,978 tons which may be said to have been then on the market, against 973,678 tons which were similarly held on June 30, 1897, and 847,686 tons on December 31, 1896. The total quantity of stocks in warrant yards on December 31, 1897, was 275,800 tons, against 221,600 tons on June 30, 1897, and 200,700 tons on December 31, 1896.

The following table shows the production of all kinds of pig iron from 1895 to 1897:

States.	1895.	1896.	1897.
Massachusetts	4,710	1,873	3,284
Connecticut	5,615	10,187	8,336
New York	181,702	206,075	243,304
New Jersey	55,502	59,163	95,696
Pennsylvania	4,701,163	4,024,166	4,631,634
Maryland	10,916	79,472	193,702
Virginia	346,589	386,277	307,610
North Carolina	323	2,151
Georgia	31,034	15,593	17,092
Alabama	854,967	922,170	947,831
Texas	4,682	1,221	6,175
West Virginia	141,968	108,569	132,907
Kentucky	63,780	70,660	35,899
Tennessee	248,129	248,338	272,130
Ohio	1,463,789	1,196,326	1,372,889
Illinois	1,006,091	925,239	1,117,239
Michigan	91,222	149,511	132,578
Wisconsin	148,400	158,484	103,909
Missouri	27,518	12,548	23,883
Colorado	58,508	45,104	6,582
Total	9,446,308	8,623,127	9,652,680

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

No advertisements but those of a financial character will be accepted for the following page.

ON A FIRM BASIS.

Finances of the Fidelity & Deposit Company.

A notable movement in financial circles in this country in the past decade has been the organization of trust and bonding companies. The center of this movement is Baltimore, which seems destined to occupy the position in this department similar to that of New York in insurance.

A pioneer of such organizations is the Fidelity & Deposit Co. of Maryland, which is firmly established in Baltimore, and which has its representatives in every city of importance in the country. The statement of its financial condition at the close of business December 31, 1897, is an excellent showing of the results of progressive, conservative management.

Its resources amount to \$2,500,524.33, of which \$600,000 are in real estate, \$579,260 in Baltimore city stock, \$218,000 in New York city gold export dock bonds, \$105,000 in State of Maryland Insane Asylum bonds, \$139,750 in State of Georgia bonds, \$115,000 in Baltimore Traction Co. bonds, \$188,587.56 in cash and the rest in sound securities.

The liabilities are as follows: Capital stock (paid in), \$1,000,000; surplus, \$1,000,000; premium reserve requirement, \$435,089.69; claims adjusted (checks out), \$1,268.41; claims in process of adjustment, \$6,561.37; claims reported, but proof not filed, etc., \$20,507.71; undivided profits, \$37,097.15.

Demand for Illinois Central Bonds.

A New York dispatch announces that \$15,000,000 of the Illinois Central Railroad Company's 3½ per cent. bonds, which was offered to the public some time ago, have been oversubscribed. The securities were offered at 95 and interest and are among the lowest railroad bonds ever placed on the market in this country or in Europe. A large portion, it is stated, were taken by foreign investors, which shows the confidence of people on the other side of the Atlantic in this railroad company.

New Corporations.

A movement is under way to open another bank at Clarksville, Tenn., by the business men of the town.

The Marion Abstract Co. has been formed at Palmyra, Mo., for the purpose of doing a loan and real estate business.

The Underwriters' Insurance Co. has been formed at Greensboro, N. C., with \$100,000 capital, by Julian S. Carr and others.

The Randolph County Bank, recently organized at Pocahontas, Ark., with \$20,000 capital, will begin business about February 1.

The Acme Savings Association has been formed at Charleston, S. C., by Arthur Lynch, P. T. Hyde and others, with \$150,000 capital.

The Stillmore (Ga.) Banking & Trust Co. is being organized to conduct business in Stillmore. It will begin operations about February 15.

The First National Bank has been formed at Leonard, Texas, with \$50,000 capital. J. O. Kuykendall is president, and W. L. Reed, cashier.

A charter has been granted to the Farmers' Loan and Trust Co., of Anderson, S. C., which includes R. S. Hill, John C. Watkins and others. R. S. Hill is president of the company.

Hon. Tazewell Ellett, C. H. Fleming and others, of Richmond, have formed the American Development Co. of the United States, to operate in Venezuela; also to do a banking business in Virginia. The capital is placed at \$1,000,000 minimum.

The Maryland Casualty Co. is being organized at Baltimore by William F. Burns, George B. Baker and others. The company is to have a capital of \$200,000 and conduct a general accident insurance business. John T. Stone, it is understood, will be president of the company.

New Securities.

The Western Maryland Telephone Co., of Westminster, Md., has decided to issue \$8000 in bonds to extend its lines.

The town of Tazewell, Va., is considering an issue of bonds for water-works purposes. The mayor may be addressed.

The town of Takoma Park, Md., it is reported, will issue bonds for improvements. The town clerk may be addressed.

The city of Frederick, Md., is considering an issue of \$35,000 in bonds for improvements. The mayor will give further information.

Messrs. Pierson & McCutcheon, of New York, have purchased the issue of \$350,000 in 6 per cent. bonds made by the city of Tampa, Fla., at par.

The Avondale Cotton Mills, of Birmingham, Ala., have issued \$100,000 in bonds, which, it is stated, have been sold to J. M. Lewis, at Talladega, at par.

The First Baptist Church of Americus, Ga., will issue \$6000 in 6 per cent. bonds to refund its indebtedness. The pastor of the church will give further information.

Marion county, West Virginia, is to vote on a proposed issue of \$100,000 in bonds for improvements. The board of commissioners may be addressed at Fairmont.

The Texas railroad commission has approved the issue of \$45,000 in bonds of the Colorado Valley Railway Co. It is made on five miles of completed line. Irving Wheatcroft, at Sweetwater, Texas, is president of the company.

The city authorities at Atlanta have formulated a plan to refund the indebtedness of the city and the city council has adopted the measure. The plan provides for a refunding of \$300,000 worth of 7 per cent. bonds, due in 1899, at 4 per cent., and \$418,000 of 8 per cent., due in 1902, at the same rate of interest. Mayor Collier will give any further information desired.

Dividends and Interest.

The Bank of Louisville, N. C., has declared a dividend of 4 per cent. semi-annual.

The Bonsack Machine Co., of Lynchburg, Va., has declared a dividend of 24 per cent.

The Piedmont & Cumberland Railroad Co. has declared a semi-annual dividend of 2 per cent.

The Southern Insurance Co. of New Orleans has declared a semi-annual dividend of 4 per cent.

The Queen City Bank of Gadsden, Ala., has declared a semi-annual dividend of 3 per cent.

The Bank of Southwest Virginia at Wytheville has declared a semi-annual dividend of 3 per cent.

The Savings and Loan Association of Atlanta, Ga., has declared a semi-annual dividend of 4 per cent.

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The Mobile & Ohio Railroad Co. has declared a dividend of 1 per cent., payable on and after February 26.	
The Norfolk, Willoughby Spit & Old Point Railroad Co. has declared an annual dividend of 6 per cent. H. L. Page,	

J. WM. MIDDENDORF.

Members Baltimore Stock Exchange.

WM. B. OLIVER.

MIDDENDORF, OLIVER & CO. BANKERS AND BROKERS.

No. 213 E. German Street,

[KEYSER BUILDING.]

Baltimore, Md.

Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal and other Investment Loans. Dealers in Foreign Exchange. Drafts on Europe and Letters of Credit furnished.

SPERRY, JONES & CO.

DEALERS IN Southern Investment Securities,

410, 412, 414 Equitable Building, Baltimore, Md.

OUR FACILITIES ARE UNEXCELLED.

LIFE INSURANCE POLICIES

BOUGHT AT INVESTMENT PRICES.

WRITE ME FOR QUOTATIONS.

If you have a large line of Life Insurance to place, I can make it worth your while to communicate with me.

E. A. COWLEY, No. 712 MERCHANTS NATIONAL BANK, BALTIMORE, MD.

of Norfolk, Va., has been elected president, and M. W. Burk, vice-president, of the company.

The Southern Stock Insurance Co. of Greensboro, N. C., has declared a dividend of 20 per cent. for the year recently closed.

The Nashville, Chattanooga & St. Louis Railroad Co. has declared a dividend of 1 per cent., payable on and after February 1.

The Bank of Elberton and the Elberton Loan and Savings Bank of Elberton, Ga., have each declared a dividend for the year of 8 per cent.

The Durham Tobacco Co., of Durham, N. C., has declared a semi-annual dividend of 3 per cent. on its capital. This dividend aggregates \$120,000.

Financial Notes.

The First National Bank of Charlotte, N. C., has elected M. P. Pegram president, in place of the late R. M. Oates, and D. W. Oates, cashier.

Sleeping Cars to Port Arthur.

In a telegram to the Manufacturers' Record, President A. E. Stilwell, of the Kansas City, Pittsburg & Gulf Railroad, states that a thorough sleeping-car service has already been arranged between Chicago and Port Arthur, Texas, by way of the Burlington and the Kansas City, Pittsburg & Gulf Railway.

Sketches from Old Virginia. By A. G. Bradley. Publishers, the Macmillan Co., 66 Fifth avenue, New York. Price \$1.50.

The "Old Virginia" of Mr. Bradley is the Virginia of the fifteen years following the war. The background for the sketches is, of course, pathetic, but the author finds many an opportunity for a flash of humor and a lot of spicy dialogue in his vivid descriptions. He loves Virginia in its wreck with the devotion almost of a native, and he impresses one with the truthfulness of his pictures. The out-of-door element largely predominates, as is natural, for the lover of the picturesque can gratify his fancy in almost any part of the State, and one's mind must be very callous if it come not under the witchery of the landscape stretching away to the blue mountains. One of the most gratifying features of the volume is this paragraph in the preface: "One word in regard to dialect passages: I have purposely avoided any elaboration on spelling the vernacular, whether of negro or poor white, where such occurs, but have endeavored to give the general sound and sense of this without taxing the application of readers who, as a body, are showing, I am told, unmistakable signs of revolt at being referred to appended glossaries even by distinguished and popular authors." One of the most encouraging signs of the disappearance

JOHN L. WILLIAMS & SONS, BANKERS,

Dealers in

RICHMOND, VA.

Southern Investment Securities,

MUNICIPAL BONDS A SPECIALTY.

Correspondence Invited.

TO CONTRACTORS.

If you have any municipal bonds or warrants, taken in payment for building waterworks, court or school houses, jails, etc., write us. Conditions being favorable, we can use them.

F. M. STAFFORD & CO.

Dealers in Southern Municipal Securities, Chattanooga, Tenn.

Mercantile Trust & Deposit Co.

OF BALTIMORE.

Paid-up Capital, \$1,000,000.

Surplus, \$1,000,000.

DEPOSITS RECEIVED

On which interest is allowed, governed by current rates obtainable

TRUSTEES AND ADMINISTRATORS.

This company is a Legal Depository for funds in the hands of Trustees or Administrators, and allows interest on same pending distribution.

Authorized to act as Executor, Administrator, Guardian, Receiver or Trustee.

ACTS as Trustee of Mortgages of Corporations and accepts Transfer Agency and Registry of Stocks.

Safe Deposit Boxes for Rent.

Vaults supplied for Storage of Silver Chests, etc.

JOHN GILL, of R., President.

MARYLAND TRUST CO.

Corner South and German Sts

BALTIMORE.

CAPITAL, - \$1,000,000.

A LEGAL DEPOSITORY FOR COURT AND TRUST FUNDS.

Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as Trustee under Mortgages, Assignments and Deeds of Trust; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

J. WILLCOX BROWN, PRESIDENT.

LLOYD L. JACKSON, FIRST VICE-PRES.

HENRY J. BOWDOIN, SECOND VICE-PRES.

J. BERNARD SCOTT, Secretary and Treasurer.

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J. Willcox Brown,	Leopold Strouse.
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Geo. A. von Lingen,	Andrew D. Jones,
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W. B. Brooks, Jr.,	Clayton C. Hall,
W. H. Baldwin,	J. D. Baker,
Fred'k W. Wood,	Joseph E. Willard,
F. M. Thieriot,	John B. Garrett,

of the "dialect" from literature is the willingness of writers to apologize for its use. It needs apology. Perhaps the truest painter of life in old Virginia was Dr. George W. Bagby, who died a few years ago. The nearest approach to his inimitable skill has been made by Mr. Bradley.

For "Classified Index" see pages 3, 5 and 7.

Ads. marked thus * appear every other week.
Ads. marked thus † appear in first issue of each month.
Ads. marked thus ‡ not in this issue.

SURETY BONDS.**Fidelity & Deposit Company of Maryland**

Home Office, Cor. Charles and Lexington Streets.

BALTIMORE, MD.

Total Cash Resources Over \$2,000,000.

Becomes SURETY ON BONDS for Contractors, and for all occupying Positions of TRUST. ACCEPTED AS SOLE SURETY by the United States Government and all States.

HERMAN E. BOSLER,
Secretary and Treasurer.**EDWIN WARFIELD,**
President.**PROPOSALS.**

SEALED PROPOSALS will be received by the Board of Mayor and Councilmen, at the Mayor's office, in the town of Summit, Mississippi, until 6 o'clock P. M., Tuesday, February 1st, 1898, for all materials and labor necessary to furnish and complete the items of water works. Plans and specifications will be sent on application.

J. B. HOLDEN, Mayor.**ALBER & BYRNE, Engineers,**
BIRMINGHAM, ALA.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., January 15th, 1898.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 31st day of January, 1898, and opened immediately thereafter, for all the labor and materials required for the approaches to the U. S. Appraisers' Warehouse, New York, N. Y., in accordance with drawing and specification, copies of which may be had at this office or the office of the Superintendent at New York, N. Y. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. Proposals must be enclosed in envelopes, sealed and marked, "PROPOSAL" for Approaches to the U. S. Appraisers' Warehouse, New York, N. Y., and addressed to the Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., January 22, 1898.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 18th day of February, 1898, and opened immediately thereafter, for all the labor and materials required for the erection and completion (except heating apparatus), of the U. S. Postoffice building at South Omaha, Nebraska, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at South Omaha, Nebraska. The right is reserved to reject any or all bids and to waive any defect or informality in any bid should it be deemed in the interest of the Government to do so. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the Erection and Completion of the U. S. Postoffice at South Omaha, Nebraska," and addressed to the Supervising Architect.

ADVERTISEMENT for Proposals to Purchase in Bulk the Long-Established and Valuable Dry-Goods Business lately conducted in the City of Washington, D. C., by SEATON PERRY, now deceased.

THE UNDERSIGNED, executors of the last will and testament of SEATON PERRY, deceased, late of the city of Washington, District of Columbia, hereby give notice that until TUESDAY, the 15th day of February, 1898, at TWELVE O'CLOCK M., they will receive sealed proposals for the purchase, in bulk, and as a whole, of the stock of dry goods and merchandise, good will, leases, fixtures, and property of every kind, which belonged to the late SEATON PERRY at the time of his death, and was then in his place of business at the corner of PENNSYLVANIA AVENUE and NINTH STREET, N. W., in the city of Washington, D. C.

All horses, wagons, harness and stable fixtures belonging to the said business are included in the property mentioned above. Book accounts due SEATON PERRY, cash on hand at the time of his death, bills receivable, bonds and stocks then belonging to him are not, nor are any of them, included in the above offer.

The terms of sale will be, at the option of the purchaser, all cash, or one-third cash and the remainder in two equal payments at six and twelve months from the day of sale, evidenced by promissory notes secured upon unincumbered real estate double in value to the face of the said notes. All bids must be sealed and addressed to the undersigned executors at the office of the AMERICAN SECURITY AND TRUST COMPANY, 1405 G Street, N. W., Washington, D. C. Bidders are invited to be present at noon on TUESDAY, the 15th day of February, 1898, at the said office of the AMERICAN SECURITY AND TRUST COMPANY, at which time said bids will be opened. The Executors reserve the right to reject any or all bids.

For information apply to said Executors at the office of said Company.

MARY FARR PERRY and
AMERICAN SECURITY AND TRUST COMPANY,
Executors, under the will of
SEATON PERRY, deceased.**HELP WANTED.**

Advertisements under this head are inserted free of charge for readers of the MANUFACTURERS' RECORD. Advertisements must not exceed five lines—about thirty words—and four insertions will be given without charge.

WANTED.—Traveling salesman on salary or commission to sell our steel pens to offices,

banks and stationers. Agents need apply. Address SPOT CASH PEN CO., Boston, Mass.

SITUATIONS WANTED.

Advertisements under this head are inserted free of charge for readers of the MANUFACTURERS' RECORD. Advertisements must not exceed five lines—about thirty words—and four insertions will be given without charge.

WANTED.—Position by A1 fitter and hammerer of circular, band and gang saws; a good mill machinist and foreman; best reference. Address JOHN WOODARD, Wilmington, N. C., care Carrier 1.

A SIDE LINE wanted by salesman visiting mill-furnishing trade in South and Southeastern States. Address Box 231, Maysville, Ky.

DRAUGHTSMAN.—Expert civil engineering draughtsman; age 24; experienced in mechanical and architectural work also, desires position; best Pittsburgh reference; fine letterer and finisher; no preference as to location, but South desirable; moderate salary acceptable. Address FRANK M. YOUNG, C. E., 68 E. Pittsburg St., Greensburg, Pa.

SALESMAN.—Young man acquainted with the tobacco trade in Western Pennsylvania, Ohio and West Virginia desires position; also have two years' experience as manager of retail store and large stogie factory in Pittsburg; can furnish A1 reference; position with either wholesale or retail firm acceptable; willing to go South or West. Address V. L. YOUNG, 68 E. Pittsburg St., Greensburg, Pa.

A WIDE-AWAKE experienced man, well acquainted with the business men in the South, would like to represent manufacturers or importers to the trade. Best of references furnished. Address W. H. WEST, 214 Narcross Building, Atlanta, Ga.

WANTED.—Situation by experienced traveling salesman; strictly temperate and reliable; experienced as stenographer and has kept books. Address D. Box 40, Schoolcraft, Mich.

WANTED.—Position as bookkeeper, stenographer or traveling salesman by a young man of good character, upright, honest and thoroughly qualified for business; can give No. 1 references. Address D. C., P. O. Box 87, Sandersville, Ga.

WANTED.—Position as tool dresser; capable of holding any job of tool dressing in locomotive or machine shop; have taken full course in Prof. Casterlin's school of instruction. Address STEEL WORKER, care Mfrs. Record.

CHEMIST, experienced in general analytical work and pharmaceutical manufacturing, would like position with manufacturing firm; experienced as superintendent and able to produce results; reliable; business ability; best references. Address PROGRESSIVE, 10 W. 35th St., New York, N. Y.

A NEW ENGLAND gentleman of large financial experience and acquaintance wishes to correspond and make connection with some Southern cotton manufacturer. Address C. C. G., care Manufacturers' Record.

A THOROUGHLY qualified man, active and obedient, wishes a position as accountant, private secretary or general manager; varied experience and A1 reference; any healthy locality; salary \$1500. Address COMPETENT, 40th St. & Ave. T, Galveston, Texas.

WANTED.—Situation as compositor on newspaper by a young man who has had several years' experience; can furnish best of references from former employer. Address CHARLES B. NELSON, Winchester, Ky.

SALESMAN, responsible, best references, 15 yrs. experience, wishes situation on mill, factory or engineers' supplies: Southern States preferred. Address J. H. H., care Jeremiah Clark, Lowell, Mass.

CHARLESTON, S. C. is entering upon an era of great commercial development.

For Sale—Residences, Building Lots, Farm Lands, Hotel Sites.

An ideal city for a winter home, full of historic interest, and a climate soft and mild in winter, but not hot enough to be enervating. Cost of living is cheap.

Educational facilities are unsurpassed. The city of Charleston's water supply is obtained from artesian wells, and has recently proved to be a valuable dyspeptic cure.

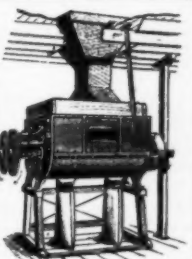
The Farm Lands near Charleston, S. C., are suitable for market gardening, which is a large and profitable industry in the vicinity of Charleston. Correspondence invited.

Exchange Banking & Trust Company,
CHARLESTON, S. C.

THE BROUGHTON DRY MIXER

FOR
Hard Plaster, Cement, Paint, &c.

W. D. DUNNING,
96 W. Water St., SYRACUSE, N. Y.



ASPHALT PAVEMENTS

Enhance the Value of Property One-Third.

DURABLE HEALTHFUL NOISELESS

20,000,000 square yards laid in eighteen years.

For plans and estimates apply to
THE BARBER ASPHALT PAVING COMPANY,
General Office, 11 Broadway, New York.


THE COLUMBIA WATER POWER CO., COLUMBIA, S. C.

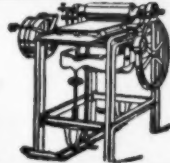
..... Offers for sale.....

UNLIMITED ELECTRIC POWER

In large or small units for manufacturing purposes. Columbia is in the centre of the cotton producing country. Low freight rates to all points. An ideal manufacturing location.
GEORGE WALLACE, General Manager, Boston Office, 53 State St., Room 608.
WM. C. HAWKINS, Managing Engineer, Columbia, S. C.

A. WALKER, President.**M. B. FITZMAN, Secretary.****S. H. SINCLAIR CO.**

Manufacturers of

LAUNDRY MACHINERY.**"THE SINCLAIR" IRONER**Is the First and the Best.
8-10 S. Canal St. CHICAGO.

Write for prices and catalogue.

Do You Want to BUY Laundry Machinery**"The Columbia" Modern Laundry Machinery**

Is the Cheapest and Best.

Latest "Up To Date"

Prices "Right"

WILSON LAUNDRY MACHINERY CO.

Send for Catalog R.

COLUMBIA, PA.**GUARANTEED**

Best Anti-Friction Metal for all Machinery bearings. For high speed and heavy crushing weight it has no equal. It is used on bearings where no other known metal will stand.

THEO. HIERTZ & SON, Sole Manufacturers,

30th Street and Park Ave.,

ST. LOUIS, MO.

Manufacturers all grades Babbit Metals, Solder, Bar Tin, Bar Lead, Lead Car Seals, etc.

CASTNER, CURRAN & BULLITT,

General Agents for the

Celebrated POCAHONTAS - COAL.

Smokeless Semi-Bituminous

MAIN OFFICE:

326 Chestnut St., - PHILADELPHIA, PA.

BRANCH OFFICES:

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70 Kilby Street, Boston, Mass.

36 Main Street, Norfolk, Va.

Neave Building, Cincinnati, O.

Terry Building, Roanoke, Va.

Old Colony Building, Chicago, Ills.

Board of Trade Building, Columbus, O.

4 Fenchurch Avenue, London, England.

SUPERIOR COKE AND COAL**The Standard Coal Co., Brookwood, Ala.,**

Produces the Best Foundry Coke in the South, and the Highest Grade Washed Blacksmith Coal. Our celebrated "Mill-dale Seam" of Coal is superior for steam purposes. This Coal is used exclusively by the Government on its war vessels Pensacola and Mobile.

FOUNDRY COKE AND BLACKSMITH COAL OUR SPECIALTIES.

Correspondence from foundries, factories and users of steam coal invited.

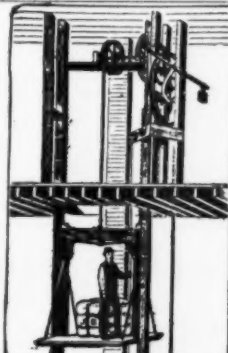
Our Coast Agents, **MOBILE COAL CO., A. C. Danner, Presdt., MOBILE, ALA.****CINCINNATI ELEVATOR WORKS,**

Manufacturers of

Hand, Steam, Hydraulic and Electric

ELEVATORS

216 West Second St., CINCINNATI OHIO.

BATES' HAND ELEVATORS,Pat. April 18, 1871. Reissued July 25, 1875.
OVER 10,000 IN USE.

Adapted for Warehouses, Stores, Factories, Hotels, Public Institutions and every place where merchandise, &c., is transferred from one story to another.

JAMES BATES' SONS,

Successors to JAMES BATES,

COR. PRATT AND PRESIDENT STREETS**BALTIMORE, MD.**

Subscribe to the Manufacturers' Record.
Price \$4 a year, or six months for \$2.

BALTIMORE CITY DIRECTORY**For 1898.**

The canvass for the above work has been completed, and it is now in press.

Parties who have changed their residences or business location since the 15th of September, or contemplate changing the style of their firm, to insure a correct insertion in same will please address

BENJ. R. SHERIFF,

Manager for R. L. POLK & CO.,

4 S. Calvert Street.

Subscription Price \$6. New Subscribers \$7.

THE BOOMER & BOSCHERT**KNUCKLE JOINT****PRESS**

FOR BALING

Cloth, Paper, Yarn, &c.

Or for any other purpose requiring great pressure.

BOOMER & BOSCHERT PRESS CO.

688 W. WATER ST., SYRACUSE, N. Y.

ECO MAGNETO WATCHMAN'S**ELECTRIC CLOCK.**

Indorsed by all Insurance Companies. Write for Catalogue.

ECO MAGNETO CLOCK CO.

621 Atlantic Ave., BOSTON, MASS.

This time last year at PORT ARTHUR

The Kansas City, Pittsburg & Gulf
R. R. was not completed.
The dredging had not begun.
The population was thirty-five souls.
Only a few buildings had been erected.

Within the past year

The Kansas City, Pittsburg & Gulf
R. R. has been completed from Kansas
City to Port Arthur, connecting the
future seaport city of the Gulf with
the district which produces 90 per
cent. of the export and import food
products of the United States.

Within less than one year we have com-
pleted nearly two miles of our seven
and a-half mile canal.

In less than a year we have added 1400
to Port Arthur's population; put in
extensive terminals; built a commo-
dious passenger station; electric
light plant; put a large addition to
our hotel, "The Sabine"; built an
export freight pier; sold over \$700,-
000 worth of property; established
two steamship lines, one to Liverpool
and one to Mexican ports, and made
the rapid growth of Port Arthur the
marvel of the end of the century.

Port Arthur is the only active
real estate market in the United
States.

It is attracting attention of
the entire country because it is
the most logically located port
in the United States.

GO SEE FOR YOURSELF.

The only way to appreciate
and understand Port Arthur and
the influence behind it is to
investigate personally.

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F. A. HORNBECK,

Land Commissioner
Kansas City, Pittsburg & Gulf R. R.,
General Manager
Port Arthur Townsite Company,
KANSAS CITY, MISSOURI.

SPECIAL Advertisements OF GENERAL Interest. OPPORTUNITIES FOR INVESTORS.

PUBLIC SALE OF The Globe Cotton Mills AT ROCK HILL, S. C.

On Monday, 7th February, 1898.

7560 Spindles, with all accessories for making
Nos. 20 to 36a Yarn and Warps.
330 Crompton 4 and 6 Box Looms; Dye House,
complete; Operators Houses.
For catalogue and particulars apply to

JOHN R. LONDON, Receiver,
ROCK HILL, S. C.

TRUST SALE OF Valuable Cotton Mills

Known as TUSCALOOSA MFG. CO.
VILLAGE OF COTTONDALE, ALA., included.

At Tuscaloosa, Ala., February 16th, 1898.

Mill of 10,500 spindles, equipped for making
platts and coarse white goods. In running order.
1790 acres of land with coal mines.
For particulars address

GEO. A. SEARCY,
Assignee Tuscaloosa Mfg. Co.,
TUSCALOOSA, ALA.

A No. 1 Location for Cotton Mills & other Manufacturing Enterprises.

ADVANTAGES:

A Natural Site.—Conveniently situated in
Chilton County, Ala., in the midst of a large cotton
producing territory, and possessing all the
natural advantages as to climate, living water
supply, railroad transportation and all the necessary
requirements for a successful factory.

An Abundance of Raw Material.—The pro-
duct of Bibb, Chilton, Shelby and Autauga coun-
ties, and a part of Perry, Montgomery and Dallas
counties, could be concentrated at a maximum
railroad haulage of not over forty miles. A great
quantity of high-grade cotton is annually pro-
duced in this territory.

Ample Transportation Facilities.—The
Southern Railway runs through the property for
a distance of one mile, and the Montgomery, Tus-
caloosa & St. Louis runs through for three fourths
of a mile.

Accessible and Adequate Water Supply.—A
large, never-failing stream is within thirty yards
of the railroad at an advantageous point with
other good water sources close.

Coal of good quality and sufficient quantity is
mined within thirty miles of the place on both
lines of the railroads above named.

Taxes are cheap (State and county) and no city
tax or license is laid.

Building Material.—Sufficient quantities of
brick and lumber for factories, houses, &c., can
be made on the property.

The Finished Product can be shipped by com-
peting lines to any part of the United States or to
the Gulf coast for export.

Extent of Territory is about 500 acres, adapted
for factory and building sites.
The advertiser shall be glad to answer all in-
quiries and give detailed information.

JONCE L. GARDNER, Randolph, Ala.

SPECIAL COMMISSIONERS' SALE OF THE Norfolk and Ocean View Railroad

3 1/2 Miles Norfolk to Ocean View;

Standard Gauge; Electric Power;

ITS PROPERTY AND FRANCHISES,

including the Ocean View Hotel Property.

Pursuant to a decree of the Circuit Court of
the United States for the Eastern District of Vir-
ginia, we shall sell at PUBLIC AUCTION in front
of the Custom-House, Norfolk, Virginia, on
Wednesday, the 23d Day of March, 1898, at
12 O'clock M., the above referred to property.
For further information apply to W. W. OLD,
CALDWELL HARDY, Special Commissioners,
NORFOLK, VA.

GREAT BARGAIN! FOR SALE.

The Madison Ice and Cold Storage Plant

At JACKSON, TENN.

Located on the N. C. & St. L. Railroad, be-
tween the M. & O. & I. C. Railroad, containing
ice plant, 16 tons capacity, and 6 cold storage
rooms; Bottling Works—200 dozen soda and min-
eral water and 30 dozen beer; Canning Factory—
10,000 cans per day. Also Machine Shop, with all
tools, etc., complete.

Address C. G., care Manufacturers' Record,
or at the Works.

For Sale at 50 Cents on the Dollar. Complete Modern Fertilizer Plant.

The Buildings, which were erected specially
for a Fertilizer Plant, are new and conveniently
arranged. The

MACHINERY IS NEW
and was constructed by well known designers and
manufacturers of fertilizer appliances. It is in
every particular of the

LATEST AND MOST IMPROVED TYPE.
The Plant is arranged for both, Acid Phosphate
and Ammoniated Goods, and is in full running
order. Now ready to be put at work at its full
capacity. The Plant has a

CAPACITY OF ABOUT 10,000 TONS
per year in complete goods. The Territory with-
in the scope of this Plant includes Delaware,
Maryland, Virginia, New Jersey and Penn-
sylvania. About 3000 tons are consumed yearly in
the territory immediately adjacent to the works.

TRANSPORTATION FACILITIES
exceptionally good, both rail and water communi-
cation is convenient. The labor cost is low. This
Modern Plant may be purchased for a compara-
tively small investment. We shall be pleased to
open correspondence with any one interested in
the trade.

WALKER & ELLIOTT,
WILMINGTON, DELAWARE, U. S. A.

WANTED.

To Furnish Shuttle Manufacturers, Slabs of
Persimmon and Dog Wood

ready for turning. Address
ESTES BROS. & CO.
Chattanooga, Tenn.

WANTED.

To communicate with a man of experience in
Cotton Mill who has \$20,000 to invest, and can
manage a mill of \$100,000 capital. Fuel at rate of
about \$1.00 per ton for coal, caused by discovery
here of large amount of petroleum. Address for
particulars

S. W. BOGY, Real Estate Broker,
CORNICANA, TEX.

A Good Chance for a Cotton Factory.

20 acres with ample buildings, one 100-horse-
power steam engine and boiler. The above prop-
erty is all new and is known as the Shreveport
Fair Grounds. Address

E. M. SMITH, Shreveport, La.

WANTED.

Machinery to Manufacture

We have a thoroughly equipped Machine shop,
Carpenter Shop and Foundry, and can do all
classes of Machine Work very reasonable. Try us.

SOUTHERN FOUNDRY & MACHINE WORKS,
FREDERICKSBURG, VA.

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We mine, manufacture, buy and sell
all kinds of mineral paints, dry colors,
minerals and clays. ALPHA PAINT
AND MINERAL CO., 338 Bourse
Building, Philadelphia, Pa.

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Wateree River falls 51 feet through Wateree
boat canal, producing many thousand horse
power. Massive granite locks in good repair.
Four miles from railroad. Near Camden, S. C.
Correspondence and inspection invited.

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Up-to-date Wheel Factory

in one of the best Southern cities. 3 railroads.
Capacity 150 sets of wheels per day. 10,000
finished spokes per day. Best of material right at
door at cord-wood prices. Address

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FOR SALE.

MONEY in TIMBER and LUMBER.

A Double Saw Mill, 100,000 Feet Capacity
Per Day, may be used for the manufacture of
Yellow Pine and Cypress
timber and lumber. Situated at the mouth of the
Altamaha river, Georgia, on deep water, favorable
for coast trade. Will be sold at a bargain on easy
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General law practice. Collections, loans, money
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furnished concerning Southern
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Latest invention, Automatic, Ball Bearing, Com-
pound Leverage, Self Contained. No gear
wheels or springs. Full circle, Simple in con-
struction, efficient in service. Write, prices,
discounts.

ALABAMA FOUNDRY & MACHINE WORKS,
NEW DECATUR, ALA.

RADFORD, Virginia.

Parties desiring to start new enterprises or
change location, are invited to investigate Rad-
ford, Va. Good climate, water and drainage,
elevation, 1800 feet. On Norfolk & Western Ry.
at junction of Columbus, O., and Pocahontas Coal
Fields divisions, as well as Southern connection
via Knoxville, Tenn. In midst of fine agricul-
tural country and 25 miles from ore fields. Popu-
lation, 4000, churches, public and private schools,
electric light and car line. Ice plant and other
manufactures.

Responsible parties are offered inducements,
including no city taxes for five years. Address

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Secretary Board of Trade,
RADFORD, VA.

FOR SALE.

7000 Acres of Yellow Pine Timber Lands, on the Georgia Coast.

Address W. A. WILLCOX, Darien, Ga.

For Sale to Close Out Business.

26,000 ACRES OF LAND,

From 4 to 16 miles from Summerville, S. C. a
noted health resort, containing long and short
leaf pine, oak, hickory ash, cypress, etc. Con-
tains excellent farming and pasture land, and is
convertible into a game preserve. Also second-
hand machinery in good order.

A. W. TAYLOR LAND & LUMBER CO.
SUMMERVILLE, S. C.

TIMBER LAND.

Virgin Forest in best tim-
bered section of West Vir-
ginia. Experts measured
off several one acre blocks on N., S., E. and W.
portions of this tract, and then measured the tim-
ber thereon, using Scribner's Lumber and Log
Book. Best acre measured 80,097 feet B. M.;
thinnest acre, 19,954 feet; general average, 39,271
feet per acre, divided as follows, viz: Hemlock,
19,016 feet; Spruce, 11,358 feet; Cherry, 2,776 feet;
Maple, 2,077 feet; Birch, 1,212 feet; Sugar, 948
feet; Ash, 794 feet; Beech, 818 feet, and Cucumber,
270 feet. Total amount of merchantable timber
on this tract (approximated)

863,962,000 FEET.

The Title is Guaranteed to be Absolutely Perfect.
Price and terms very reasonable. Sworn state-
ment of the experts and detailed information sent
upon application to THE SOUTHERN REAL
ESTATE EXCHANGE, Clarksburg, W. Va.

FOR SALE.

Mineral, Farming AND Timber LANDS.

Can Supply following:

Asbestos Lands.	Ash Timber Lands.
Beauxite Lands.	Black Cypress Poles.
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Phosphates, Tennessee.	Phosphates, Florida.
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Sea Islands.	Tin Mine.
Talc Deposits.	Truck Farms.
Tie Lands.	Timber Lands.
Turpentine Lands.	Tan Bark Lands.
White Pine Lands.	White Oak Lands.
Walnut Timber.	

E. WILLIS,

CHARLESTON, S. C.

Foreclosure Sale

(TYREE & WILKINS, Auctioneers.)

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF VIRGINIA,
In Equity.

THE PEOPLE'S TRUST COMPANY OF BROOKLYN, Plaintiff,
vs.

THE LYNCHBURG ELECTRIC COMPANY, Defendant

In pursuance of a decree for foreclosure and sale, dated December 11th, 1897, and entered in the above entitled cause, in the office of the Clerk of the United States Circuit Court at Lynchburg, Virginia, on the 11th day of December, 1897, we, Randolph Harrison and W. D. Coleman, the undersigned, Commissioners in said decree named, will sell at public auction on the premises, in the City of Lynchburg, Virginia, to wit, at the power house of said defendant company on Jefferson Street in said city, on

Monday, February 28, 1898,

at 12 o'clock M. of that day, the property, rights and franchises mentioned in said decree and in the bill of complaint and in the deed of trust of the first day of December, 1892, from the defendant to the plaintiff, and described as follows in the decree aforesaid:

"(1) All the lands and tenements of the said party of the first part whereof located, including: (1) its real estate in the said City of Lynchburg, bounded by Park Avenue, Taylor and 7th Streets, with the stable, shops, plant and workshops thereon, it being the same property conveyed to it by the Lynchburg Street Railway Company by deed of the 28th of November, 1892, and (2) its (the grantor's) interest, whatever it may be, in that certain lot or parcel of land in the City of Lynchburg and bounded as follows: Beginning at the intersection of Jefferson and 10th Streets, thence with Jefferson Street toward 9th Street 84 feet, thence at right angles toward Lynch Street and parallel to 10th Street 132 feet, thence at right angles and parallel with Jefferson Street 84 feet to 10th Street, and with the latter 132 feet to the beginning, it being a part of lot No. 467 in the plan of the City of Lynchburg upon which its power house is situated, and the same lot conveyed to the grantor by the Piedmont Electric Illuminating Company by deed of the 28th day of November, 1892.

"(2) Its line of street railway located over, in and along the streets of the City of Lynchburg, in West Lynchburg and the County of Campbell, all its sidings, tracks and connections, its privileges, leases, easements, rights, immunities and contracts, all its equipments, engines, boiler, dynamos, cars, horses, mules, wagons, stable harness, tools, implements, machinery, plant, electric appliances, lamps, poles, wires, its contract or franchise to light the City of Lynchburg, or to furnish lights to the inhabitants thereof, and all its property, tangible and intangible, whether in possession or to come into possession, acquired or to be acquired, all its revenues and resources of all sorts, present and future, the object being that future acquisition of what kind shall immediately come under this deed of trust as effectually as if the same were now held and specified by name."

The franchise which the defendant company holds from the City of Lynchburg for the operation of its street railway as aforesaid, continues in force for thirty years from January 1, 1881, and the length of its railway in operation is between 5 and 6 miles. Said sale is subject to ratification by the Court, and will be made to the highest and best bidder, who will be required by the undersigned Commissioners, before making any adjudication to him, to pay in cash the sum of \$5000 on the day of sale, and if the sale is confirmed by the Court, the balance of the purchase money must be paid within twenty days from that day, but the purchaser shall have the right to anticipate the day of payment. If the holder, or holders, of any bonds of the said defendant company, secured under the said deed of trust of December 1, 1892, shall become the purchaser of said property, the said bonds and unpaid coupons thereon will be received in payment of the purchase money to an extent equivalent to so much of the purchase money as would be eventually payable as dividends in this cause upon such bonds and unpaid coupons upon a proper distribution and accounting for the said proceeds of sale. The Receiver's certificates, or any of them, may be used as cash in the payment of any part of the purchase money to the extent that certificates so used, and the interest due thereon, would be entitled to share in the distribution of the cash so required, except as to the \$5000 required to be paid on the day of sale as aforesaid. In case of the failure of any bidder to comply with the terms of sale on the day of sale, the undersigned Commissioners will reject the bid, and proceed at once, then and there, to make a resale.

Any of the parties to this suit, or any party in interest, may bid for and purchase the said property, rights and franchises at the sale aforesaid.

Upon confirmation of the report of sale by the Court and the compliance with the terms of sale by the purchaser, and payment in full of the purchase money, the undersigned Commissioners will execute and deliver a deed of conveyance to the purchaser, and the said purchaser shall then and there be let into the possession of the said property, rights and franchises, and shall be entitled to have and receive all books, maps, plans, papers, records and documents of the said Lynchburg Electric Company, or of the Receiver, relating and appertaining to the said property, rights and franchises. The Receiver in this cause is directed to remain in possession of the said property, rights and franchises, and to continue to operate the said street railway and electric plant after the sale and until a conveyance thereof, and if the sale shall be confirmed, the purchaser, on delivery of possession by the Receiver, shall be entitled to receive, and shall take, the said property subject to any gains or losses that may have accrued or been incurred subsequent to the day of sale.

Any further information desired will be furnished by the undersigned Commissioners, or by TYREE & WILKINS, the Auctioneers, No. 211 9th Street, Lynchburg, Va.

RANDOLPH HARRISON,
W. D. COLEMAN,
Commissioners.

C. H. NORTON,
Contractor and Builder,
Cotton Factories, Residences, Churches,
Business Buildings.
All Classes of Heavy and Fancy Buildings.
Correspondence Solicited.
DURHAM, N. C.

MUST BE SOLD.

FOUNDRY and MACHINE SHOPS.

The largest and best equipped jobbing foundry in Alabama. Machinery in first-class condition. Write for particulars. Address F. & M., care Manufacturers' Record.

Master Commissioners' Sale.

The Mercantile Trust and Deposit Company of Baltimore

vs.

The Brunswick Light and Water Company.

UNDER and by virtue of a decree in the Circuit Court of the United States for the Eastern Division of the Southern District of Georgia in the above-stated cause rendered on May 12th, 1897, and supplemental decree in said cause rendered by said court on January 10th, 1898, we will sell to the highest bidder at public outcry before the court house door in Brunswick, Georgia, on Saturday, February 26, 1898, between the hours of ten o'clock A. M. and four o'clock P. M., all of the following described property, assets and franchises of the Brunswick Light and Water Company as an entirety, to wit: All of the real estate, buildings, implements, machinery, outfit, equipment, water works, gas works, electrical works, mains, pipes, hydrants, meters, retorts, furnaces, pumps, belonging to the water, gas and electric plants of the Brunswick Light and Water Company, situate in the City of Brunswick, Glynn County, Georgia, together with all other property, privileges and franchises of said Brunswick Light and Water Company, with the rents, earnings, revenues and profits, and especially the rentals for gas, water and electric lights due and payable by the Mayor and Council of the City of Brunswick, together with all choses in action belonging to said Brunswick Light and Water Company; and for a more particular description of the said properties herein advertised to be sold reference is made for description in detail to the mortgage from the Brunswick Light and Water Company to the Mercantile Trust and Deposit Company of Baltimore, dated the first day of April, 1890, recorded in Book Vol. 3 of mortgages, at folio 337, of the general records of Glynn County, Georgia, a copy of which is filed as an exhibit in the above-stated cause.

The terms of sale to be as follows: The successful bidder, at the time the property is knocked down to him, or within one hour thereafter, to pay to the Master Commissioners the sum of Five Thousand Dollars (\$5,000.00), in cash, which sum shall be forthwith deposited by the said Master Commissioners in the Registry of the Court and be credited on the purchase in case the sale is approved by the Court, but shall become forfeited and may be applied by the Court to the discharge of the cost and expenses of this suit and other claims and indebtedness, including the mortgage debt, as aforesaid in their proper order, and the property may be resold by direction of the Court if on the approval of the sale the purchaser shall fail to comply with the terms of his purchase, or with any other provision of the decrees with respect to the sale by him to be complied with. And in case the deposit required to be made by him on the day of the sale is not made in the time limited, the Master Commissioners may at the expiration of said time, and on the same day re-sell the property as though no preceding sale had taken place. An additional sum of Five Thousand Dollars (\$5,000.00) shall be paid in cash by the purchaser upon confirmation of the sale, and such further sum shall be paid in cash as the Court may find necessary to meet the charges on the fund under the terms of the decrees of sale, and so order to be paid in, and the balance of said purchase price may be paid either in cash or by presenting and surrendering to be stamped, as provided in said decree, the mortgage bonds and overdue, and unpaid coupons pertaining thereto, the purchaser to be credited thereon on account of the purchase price, and a count only as is equivalent to the distributive amount that the holders of such bonds and overdue coupons would be entitled to receive thereon in case the entire amount of the bid was paid in cash. That the purchaser at the sale, by virtue of his purchase, shall assume all executory contracts, agreements and obligations made and entered into by the Receiver in the operation and management of the property in his charge and which have been heretofore authorized to be made and entered into by said Receiver and shall pay the taxes for the year 1897.

The Court reserves the right to re-sell the premises and property sold, or any part thereof, upon failure of the purchaser or purchasers, his, its or their successors or assigns, to comply within ten days with any order of this Court requiring such purchaser to pay into court any balance of the purchase price or perform the requirements of said decree.

The application of the fund arising from the sale shall be as provided in said decree of May 12th, 1897.

All claims against the Receivership or claiming preference over the mortgage debt foreclosed by said decree shall be presented by intervention in said cause within thirty days after the delivery of the property to the purchasers or be forever barred from participation in the proceeds of sale.

For the further particulars of said properties so to be sold and of the terms of sale reference is hereby expressly made to said decree of May 12th, 1897.

ALEXANDER PROUDFIT,
W. E. BURBAGE,
Master Commissioners,

January 11th, 1898.

Bargains in Machinery FOR IMMEDIATE DELIVERY

FOR SALE.

1 D. E. W. Motor, 7½ Horse-Power, 125 Volts.
1 Motor, 5 Horse-Power, 250 Volts.
1 Dynamo, 150 Lights, 100 Volts, Edison.
CLARK ELECTRIC CO.
176 Jefferson Avenue, DETROIT, MICH.

FOR SALE.

Van Duzen Gasoline Engine,
12x12. 15 to 18 H. P.
Perfect order; good as new; reasons, not large enough for my use.
H. S. BETTEYS, Richmond, Va.

FOR SALE.

One second-hand "BERRYMAN" HEATER AND PURIFIER, in perfect condition and guaranteed good as new. Will sell cheap for cash.
Address M. F., care Mfrs. Record, Baltimore, Md.

CORLISS ENGINES 125, 150, 275, 300 H.P.

FOR SALE.
300 H.P. Armstrong & Sims, 100 H. P. Payne Engine; also Second-Hand Boilers in sizes from 40 to 125 H. P. 80 to 100 engines in stock to select from. Advise us of your wants.

S. L. HOLT & CO.
67 SULZUR STREET, BOSTON, MASS.

SECOND-HAND ENGINES

FOR SALE CHEAP

BY THE

AMERICAN ENGINE CO.

Builders of the American Ball Engines and Electrical Machinery.

BOUND BROOK, N. J.

Bargains.

1 P. Morris Upright Blowing Engine,
Steam cylinder, 45", stroke 7", Tub 90". In fine order.
3 Horizontal Tubular Boilers,
66" in diameter, 16' long, 68 4" tubes. Good as new.
1 Copeland & Bacon Horizontal Hoisting Engine,
12" steam cylinders, 48" drum. Perfect condition. Apply

POULTER & CO.
206 Bullitt Building, PHILADELPHIA, PA.

FOR SALE

8 3-ft. gauge Locomotives.
1 Standard gauge Locomotive.
2 1½-yard Steam Shovels.
6 3-ft. gauge 3 yard Dump Cars.
25 new 3-ft. gauge 2½-yard Cars, for shovel or hand work.
5 side and centre Unloading Plows.
1 Leveling Car with plow.
10 Hoisting Engines.
6 Centrifugal Pumps.
Large stock of Engines, Boilers and Steam Pumps.

THOMAS CARLIN'S SONS,
ALLEGHENY, PA.

PIPE BARGAINS.

2, 4, 6, 8, 10, 12 and 20 inch.
For Water, Gas, Steam, Air and Oil
Write for particulars and prices to

F. H. BOWES,
304 Dearborn Street, CHICAGO, ILL.

JUSTICE COX, JR.

552-554 Bullitt Bldg., Phila.,

Agent for

Pulaski Iron Company.
Brier Hill Iron & Coal Company.
Lebanon Valley Furnace Company.

THE SOUTHERN STATES FARM MAGAZINE is unquestionably and incomparably the most economical and effective channel through which the seller of Southern lands may reach the attention of the Northern buyer of such lands.

YOU CAN SAVE MONEY

by buying your Dynamos, Lamps, Generators, Motors, etc., from us. We carry a stock of Second Hand Electrical Machinery, repaired and in first class order. All apparatus guaranteed to be in excellent operative condition. Central stations and isolated plants can turn scrap dynamos, wire and incandescent lamps into cash by writing to us.

THE CORNMAN COMPANY,
1136 Hamilton Street, CLEVELAND, OHIO.

BARGAINS in New and Second-Hand MACHINERY.

Lathes from 12" to 48", Planers from 20" up to 60", 48", 54" and 60" Radial Drills, No. 2 Newton Milling Machine, No. 2 Screw Machine, Shapers from 6" to 30", Boilermakers' Punches, Shears, Edge Planers, Rolls, Drills, Engines, Boilers, Pumps and Dynamos.
FRANK TOOMEY, 131 N. THIRD ST., PHILA.

FOR SALE.

1 Squaring Shear, 42", used.
1 Crank Shaper, 15".
1 Drill Press, 16".
1 Boring Machine, 13½".
1 Double Punch, new.
Send for new catalogue.
WAIS & ROOS PUNCH AND SHEAR CO.
Cincinnati, Ohio.

FOR SALE.

One Morgan Traveling Crane,

Ten tons capacity, span 45 feet 6 inches. In first-class condition.

THE WESTINGHOUSE MACHINE CO
PITTSBURGH, PA.

EDWARD J. ETTING,

IRON & STEEL,

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Storage Yard—Old Navy Yard.

REPRESENTING The Holland Company

Girders and Tee Rails.

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MFRS. OF "Mt. Savage" Fire Brick

REPRESENTING Matthew Addy & Co.

PIG IRON.

AGENT Dayton Coal & Iron Co.

LTD. PIG IRON.

FOR SALE.

ENGINES for Blast Furnaces, Foundries, Converters and Rolling Mills. MILL TRAINS (3-high), 48 in., 30 in., 18 in., 12 in. and 6 in. SHEARS for Blooms, Billets, Plates, Sheets, Old Rails and Scrap. CRANES—Yale and Towne Pillar Crane (10-ton); Jib Cranes Iron and Wooden. STEAM HAMMERS, various sizes and makes. SQUEEZERS (Rotary). FLY WHEELS and BAND WHEELS, various sizes. Punches, Straighteners, Roll Lathes, Riveter, Machine Shop Tools, etc., etc. LOCOMOTIVES, various gauges, sizes and styles.
B. M. EVERSON,
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Sales Agt. BALDWIN LOCOMOTIVE WORKS, Philadelphia, Pa.

BARGAINS!

DYNAMOS IN STOCK.

Incandescent—16, 30, 35, 40, 50, 60, 100, 125, 150, 200, 250, 300, 350, 425, 450, 500, 540, 650, 750, 1000 Light.
Arc—9, 18, 20, 25, 30, 35, 40, 45, 50, 60, 65 Light; 1200 C. P. or 3000 C. P.
Alternators 500, 600, 650, 750, 1000, 1300, 2000 Light
Power Generators—20, 25, 50, 60, 75, 100 Horse Power.
All of Standard makes, principally Edison, Thomson-Houston, Westinghouse, Brush. Send for monthly BARGAIN SHEET giving complete list with prices. Also Motors, Arc Lamps, Instruments and Supplies.
CHAS. E. GREGORY COMPANY,
58-60 Clinton St., CHICAGO.

FOR SALE.

Five T. H. D. 62-500 volt compound wound generators with self-oiling bearings and complete station instruments, in first-class operating condition. Any one desiring to equip their factory with electrical transmitters of power will find these machines well calculated to serve either as motors or generators, being rated at 85 horse-power. Any one contemplating purchasing electrical machinery will be profited by communicating with us.

ROBBINS & MYERS CO.

SPRINGFIELD, OHIO.

SECOND-HAND RAILS.

If you have any old rails—either in good condition to relay, or if only fit to be used as scrap—advise us; we buy both kinds.

ROBINSON & ORR,
419 Wood Street, PITTSBURGH, PA.

We Sell New Steel Rails and RELAYING RAILS.

FOR SALE.**RAILS and ROLLING STOCK**

1500 tons 60 lb. Relaying Rails with Splices.
500 tons 56 lb. Relaying Rails with Splices.
1000 tons new Steel Rails, 48 lbs., with Splices and Spikes.
1000 tons new Steel Rails, 45 lbs., with Splices and Spikes.

Lot of narrow gauge engines, flat and box cars, at Galveston, Texas. Call or write.

BLOCK-POLLAK IRON CO.
CINCINNATI, OHIO, or CHICAGO, ILL.
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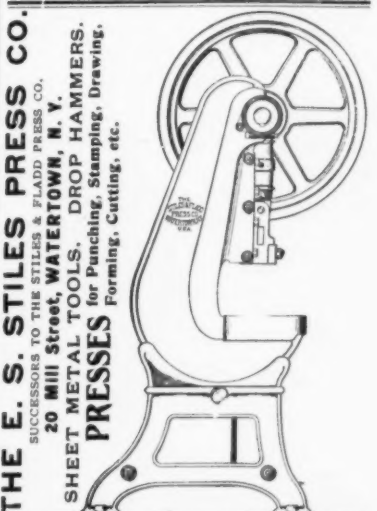
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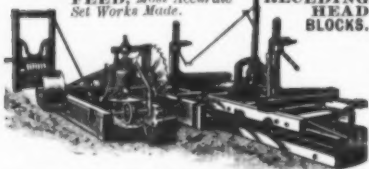
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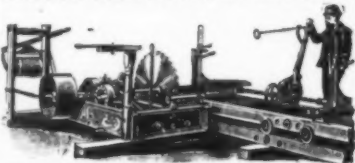
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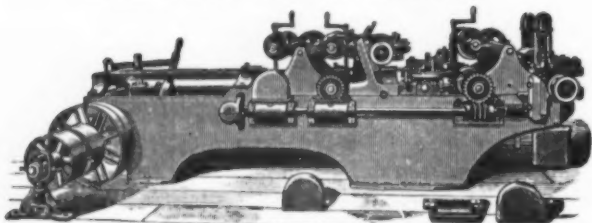
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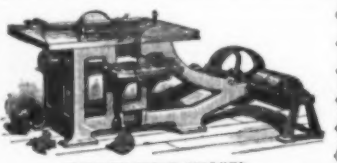
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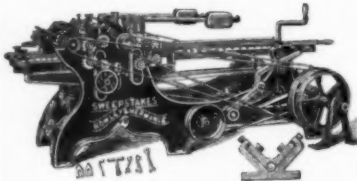
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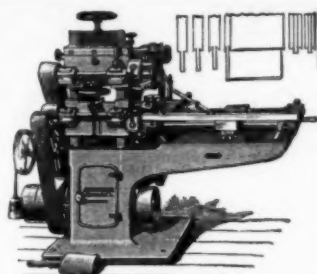
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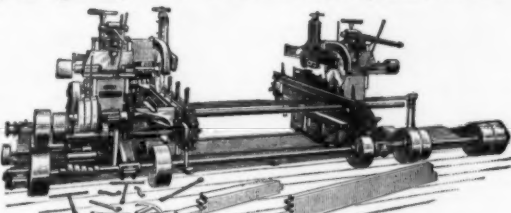


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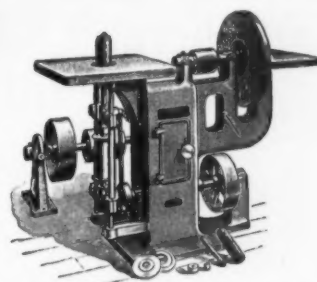
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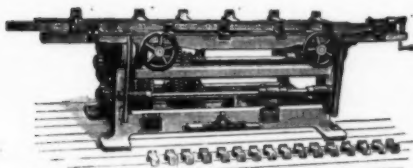


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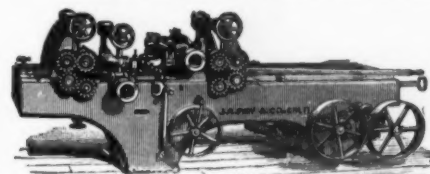


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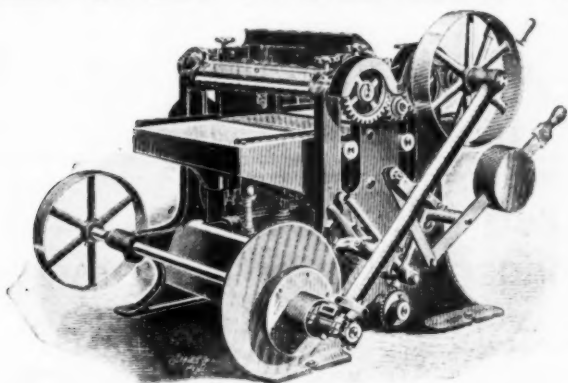
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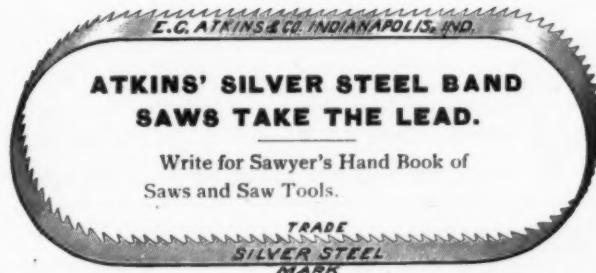
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While many of the new mills have thus placed themselves in the van, there are thousands of old common looms that are a severe handicap to their owners. As the Northern mills are also rapidly adopting Northrop looms, the competition promises to assume an interesting aspect. One prominent Southern mill, after trial with a large order of our looms for a year, has promptly accepted the inevitable by ordering more looms of us to replace all their common looms, although the latter are but five years old and in perfect condition. Delay simply prevents a possible profit.

We are not afraid of investigation. See these looms running at the

Tucapau,	Gaffney,	Pelzer,
Lockhart,	Spartan,	Henrietta,
Steele's Mills,	Abbeville,	Henderson, (N. C.),
Whitney,	Victor,	Wilmington,
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At the same time consider that we are the largest manufacturers of Spindles, Spinning Rings, Separators, Warpers, Spoolers, Temples, etc., if interested in those lines.

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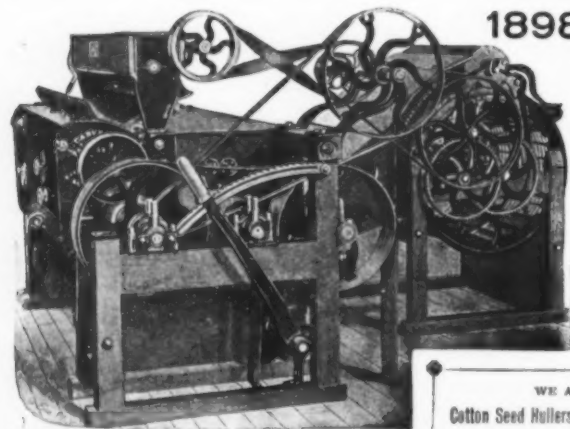
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Ribbers single and double feed. Write for full particulars.

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WITH
Patent Automatic Feeder.
Adjustable Seed Board.
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Patent Iron Cylinder or Wood Cylinder.

WE ALSO MAKE
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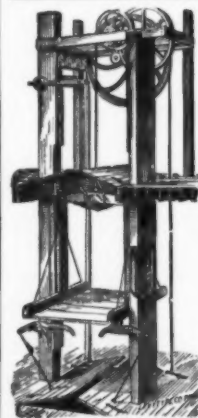
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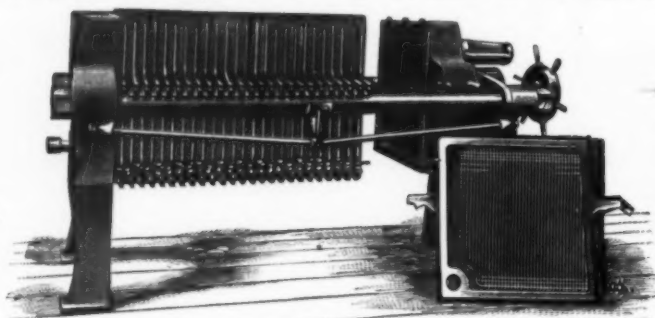
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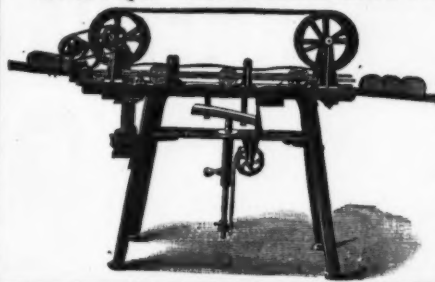
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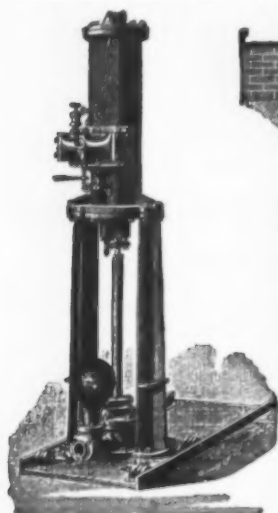
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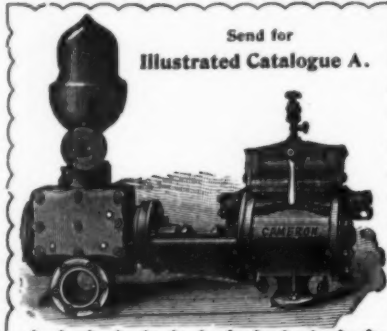
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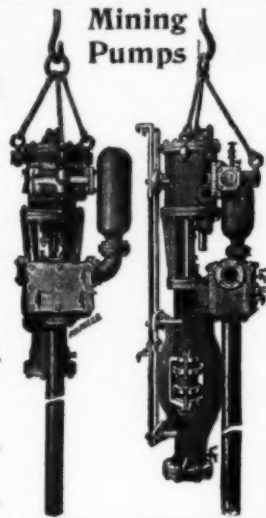
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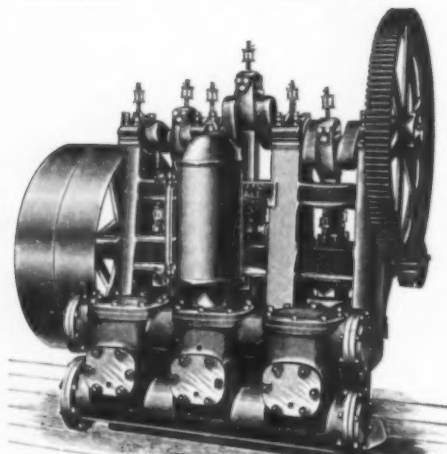
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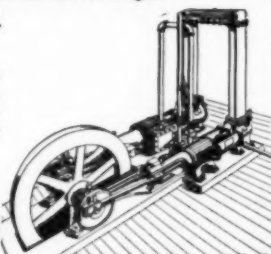
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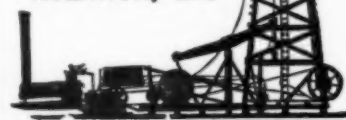


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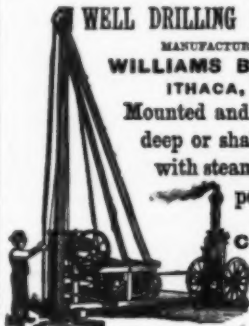
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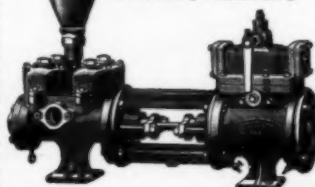
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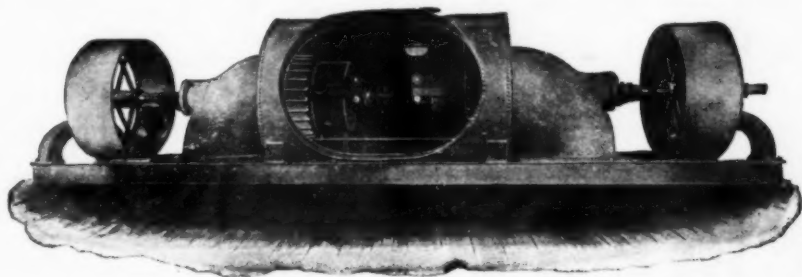
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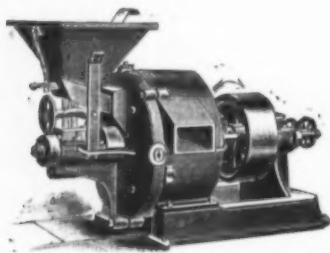
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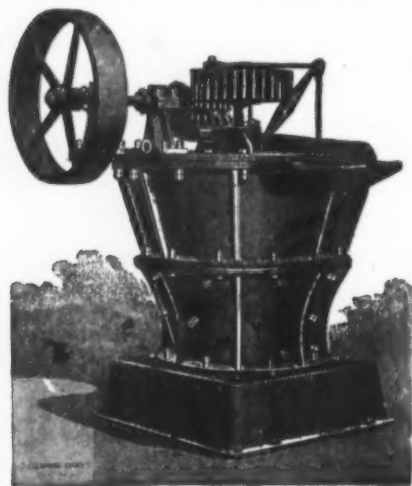
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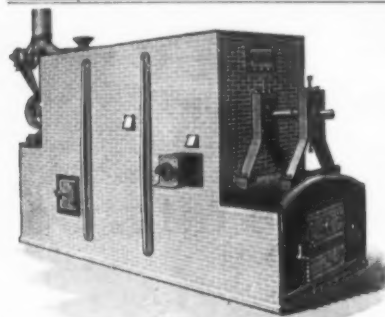
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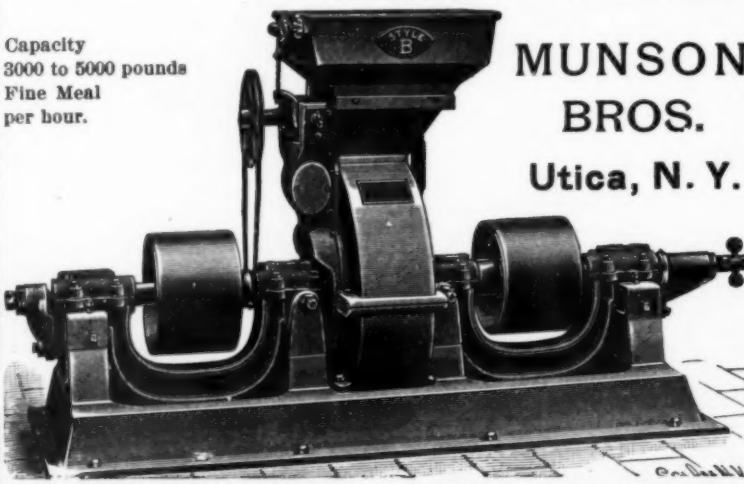
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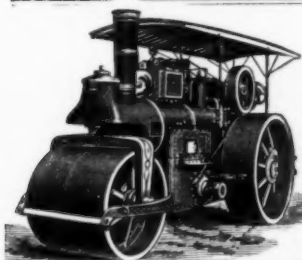
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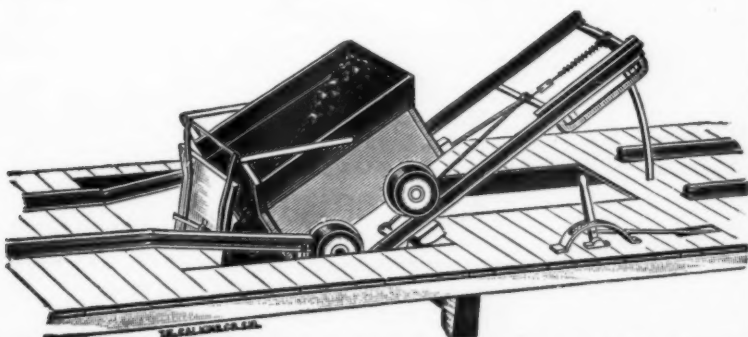
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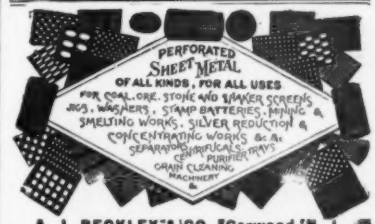
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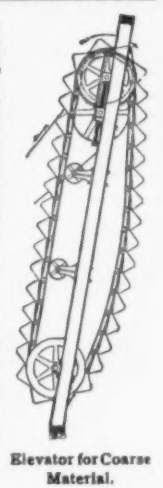
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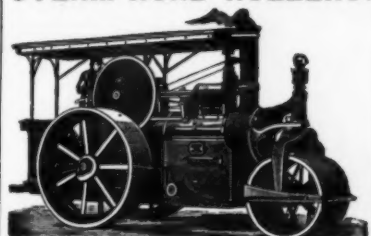
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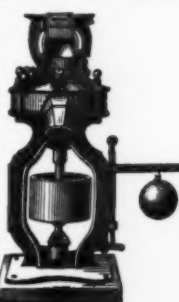
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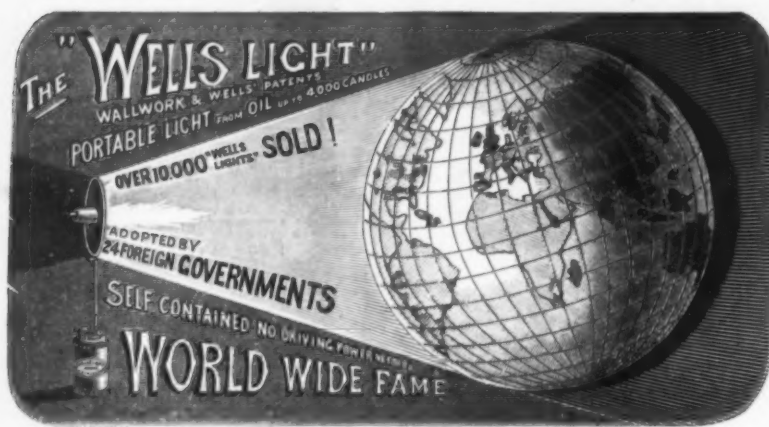
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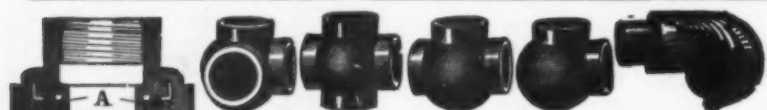
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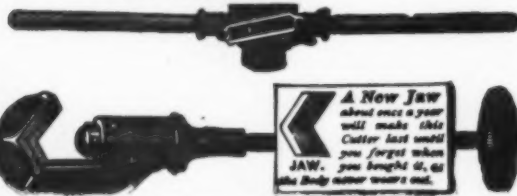
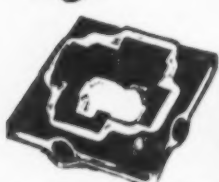
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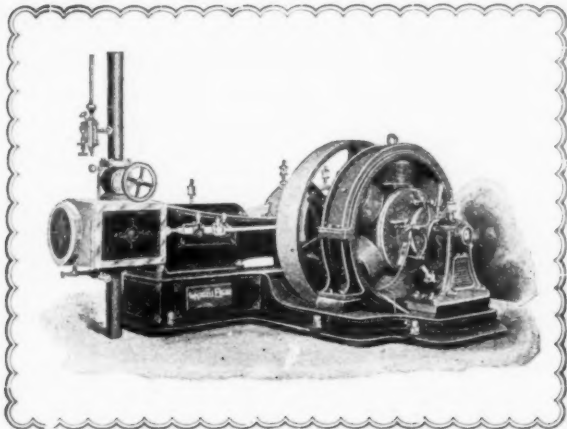


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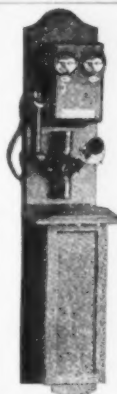
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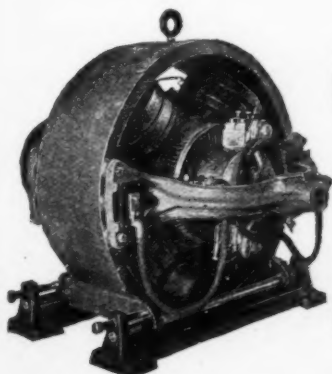
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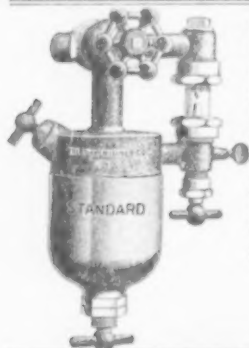
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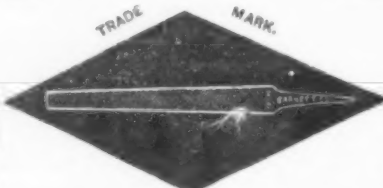


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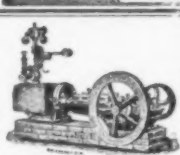
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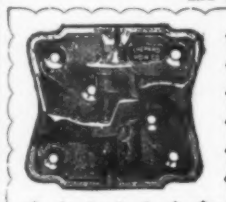
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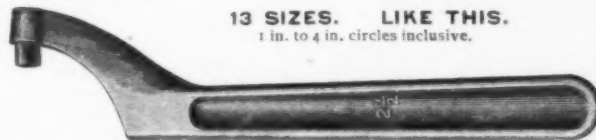
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